Report of the Phase I Cultural Resources Survey at the Columbia Run Conservation Area, Boston Township, Summit County, Ohio

By

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Abstract

From October 2020 to November 2021, Summit Metro Parks Cultural Staff (CRS) conducted a Phase I archaeological inventory of the Columbia Run Conservation Area (COLRN). The purpose of this investigation was to locate previously unidentified cultural resources within SRZ North as part of a larger natural and cultural resource inventory done in tandem with the National Park Service (NPS). This inventory will be used to inform Summit Metro Parks (SMP) and the Cuyahoga Valley National Park (CVNP) regarding resource management of the shared area, possible trail rerouting, and public access limitations. This document records the historic and archaeological research and surveys completed for this overall assessment. The work documented in this report was completed in accordance with the Secretary of the Interior's Standards for Section 106 for cultural resource management.

Two sections of SMP's COLRN fall within the SRZ, these are identified in this report as SRZ North and SRZ South. Both SRZ North and South were subjected to visual inspection. Seven previously unidentified archaeological sites or features were located during this survey (Figure 4). Field Site 1 (FS1) is a precontact site which was further investigated through a Phase I archaeological survey and designated on the Ohio Archaeological Inventory (OAI) as 33-Su-717. Field Site 2 (FS2) consisted of a single precontact lithic flakes; Field Site 3 (FS3) consisted of two precontact lithic flakes. Field Sites 4, 5, 6, and 7 (FS4, FS5, FS6, and FS7) are remnants of historic roads.

Survey of the cultural resources throughout SMP's property within the SRZ revealed numerous instances of extant resources, both historic and precontact, across the landscape. Further documentary/map research and, if warranted, archaeological investigation may reveal connections to historic settlement or agricultural land use. As noted above, the visual inspection identified three new precontact sites areas, designated FS1, FS2, and FS3. A shovel test survey of FS1 identified a small lithic scatter along a ridgetop in a relatively eroded soil profile. The site is designated 33-Su-717 on the Ohio Archaeological Inventory (OAI). These sites are all within close proximity of one another as well as two other precontact archaeological sites, 33-Su-102 and 33-Su-87. Taken together, these sites reveal a strong pattern of occupation along the ridgelines across this area, with access to both the Cuyahoga River and smaller tributaries of Columbia Run. The findings of this survey, placed in a larger context of previously identified sites nearby, raises important questions about precontact land use and settlement patterns as a whole.

It is the strong recommendation of this survey that human access be kept to a minimum throughout Columbia Run Conservation SRZ North and the surrounding area. Minimizing erosion which may affect sites located along ridgelines, hills, or bluffs, would also be preferable. The presence of an informal visitor trail cutting directly through FS1, and the erosion observed during the shovel test survey suggest that visitor presence could be affecting soils, and therefore archaeological sites, along the uplands and ridgelines throughout the SRZ.

Introduction

Between October 2020 and November 2021, CRS of SMP conducted a cultural resources inventory of COLRN, located in Boston Township, Summit County, Ohio. The purpose of the inventory was to locate any previously unidentified archaeological sites within the conservation SRZ North as part of a Sensitive Resource Zone Focused Condition Assessment conducted by SMP and CVNP. This larger project was undertaken to assist in planning for further resource management, possible rerouting of the Buckeye Trail, and public access restrictions to the shared area with NPS.

The fieldwork was conducted by SMP Cultural Resources Coordinator Megan Shaeffer, Ph.D., Cultural Resource Specialist Charlotte Gintert, and Seasonal Cultural Field Technician Eliana Balit.

Background Information

Environmental Setting

The project area is in the northwest corner of Summit County, in Boston Township (Town 4, Range 11) near the border of Cuyahoga County (Figure 2). The total acreage for COLRN within CVNP's SRZ is 246.98 acres (1 km^2). A more detailed map of the project area is provided in Figure 3. The main body of COLRN totals 244.1 acres (.99 sq. km). It is bounded by Columbia Road to the north, Boston Mills Road to the south, Riverview Road and Boston Mills Ski Resort to the east, and CVNP to the west. This portion is bisected almost in half, north to south, by a parcel owned by CVNP. A triangular 2.88-acre (.01-sq. km) noncontiguous parcel is located to the southwest of the main portion and bounded by CVNP on the north and west and the right-of-way for Rt. 271 and I-80 on the south.

In this area of Summit County, the topography is a testament to the geological history of the Cuyahoga River and the glaciers that moved through Ohio during the Wisonsinan Ice Age, which lasted from approximately 35,000 years ago to 12,000 years ago. The topography of Summit County is a series of glacial till-covered plateaus and intervening outwash-filled valleys. The relief in the northern part of the county is greater because the old valley fill has been dissected by the Cuyahoga River and its tributaries (United States Department of Agriculture, Soil Conservation Service [USDA, SCS] 1990).

The project area is in the Glaciated Allegheny Plateaus, in the Killbuck-Glaciated Pittsburgh Plateau, which is characterized by ridges and flat uplands dissected by steep valleys (ODGS 1998). The Cuyahoga River in this area is in a stream valley surrounded by steep ridges associated with glacial retreat at the end of the last ice age. Wisconsin-age till deposited from multiple separate glacial events overlays Wisconsin-age layers of sand and gravel throughout this area (Pavey et al 2000). The glacial geomorphological units throughout the northern portion of the COLRN within the SRZ are almost entirely Wisconsin-age outwash, with a small area of Wisconsin-age End/Lateral Moraine extends along the eastern edge. The southern portion of COLRN within the SRZ is Wisconsin-age End/Lateral Moraine.

Summit County bedrock consists of Devonian, Mississippian, and Pennsylvanian age rock (Bownocker 1981). Olentangy and Ohio shales make up the Devonian formations. The Devonian underlies a narrow region along the Cuyahoga Valley north of Boston Township. Limestone, sandstones, Waverly and Maxville shales make up the Mississippian formation.

These deposits underlie the western two-thirds of the county. Intermixed with these are deposits of shales, sandstones, Allegheny coal and Pennsylvanian age rock. Limestone is also found along the western and southwestern county lines. The Pennsylvanian age limestones contain the closest chert bearing strata. Included in this is the Upper Mercer formation located in southeastern Summit County (Stout and Schoenlaub 1945). These sources would have provided precontact Indigenous peoples with good sources of tool-making materials.

There are numerous soil types throughout COLRN, which can be seen in Appendix A. These soil types are not discussed in detail in this report, aside from the soils found in 33-Su-717, the location of the Phase I archaeological survey which is detailed in this report. The soil in 33-Su-717 is Glenford silt loam, 2 to 6 percent slopes (GfB). A typical profile of this soil is an Ap horizon of 0-18 cm in depth which is a dark grayish brown silt loam over a BA horizon of 18-15 cm which is a yellowish brown silt loam. This soil type is found on terraces, sometimes in elongated swaths, in areas between entrenched tributaries of the Cuyahoga River. Some areas of Geeburg and Ellsworth soils can also be present in locations near the Cuyahoga River Valley (such as the present project area). Geeburg silt loam, 12 to 18 percent slopes, moderately eroded (GbD2) are present just north of the project area. This soil is characterized by an Ap horizon of 0-18 cm in depth which is a dark grayish brown silt loam over an E/B horizon at depths of 18-23 cm which is a light yellowish brown silt loam mixed with a yellowish brown firm silty clay loam. Underlying this is a dark yellowish brown clay at depths of 23-30 cm with some distinct grayish brown and light grayish brown mottles. Erosion can be a hazard to this soil, and in eroded areas (as is common in GbD2 profiles), the surface layer may be a mix or eroded topsoil remnants mixed with the clayey subsoil. (USDA NRCA 1974; USDA NRCS n.d.)

White oak, red oak, black walnut, black maple, sugar maple, white ash, red elm or slippery elm, and basswood, black cherry, bitternut and shagbark hickories dominated the oak and sugar maple forests (Gordon 1966). In the wetter areas of Carlisle and Sebring soils, American elm, black ash, white oak, silver maple, and red maple were found (USDA, SCS 1990). These floral species would have been available for food, tools, and building materials for resident populations throughout time.

The habitat suited woodland wildlife such as deer, raccoon, squirrel, chipmunk, wolf, bear, bobcat, woodchuck, vole, woodrat, bat, hawk, owl, turkey, pigeon, ruffed grouse, and woodcock. The habitat also supported wetland wildlife: heron, rail, goose, duck, turtle, snake, toad, frog, muskrat, beaver, drumfish, suckerfish, pike, and shellfish. Later, during the settlement period, many domesticated animals such as pig, sheep, horses, chickens, domesticated geese, dogs, and cats were introduced and used for food, production, or companionship.

Summit County's climate is characterized as continental. Weather is influenced by the winds that blow off Lake Erie. These winds tend to raise winter temperatures and lower summer ones. Winters are usually cold and cloudy and summers warm and humid. The average monthly rainfall is 3.2 in (8 cm), though the annual precipitation varies year to year (NOAA). The climate provides sufficient summer rains and frost-free days to raise crops and allow year-round living.

Precontact Context

The purpose of developing a precontact context is to provide a general background in which to view local developments through the synthesis of information regarding the prehistory

of an area from previous investigations and general archaeological investigations of the Eastern and Midwestern North America precontact era. Regional information provides a framework by which NRHP site significance may be addressed. Figure 1 shows a timeline representative of precontact sites in Northeastern Ohio:

The Paleoindian Period (11,000 – 7,000 B.C.)

The Paleoindian period in Ohio begins at the end of the Pleistocene, approximately 11,700 years ago. The change from the Ice Age to a more modern climate took place in some areas earlier than others. Most Paleoindian specialists use 10,000 years ago, or 8,000 B.C. as the end of the Paleoindian period. The beginning is more difficult to determine, in part because of a lack of good chronometric data in Ohio. Two Paleoindian sites that have produced dateable materials are Nobles Pond (33-Wy-52) in Stark County, dating to about 10,500 B.C. (Seeman 1994), and Paleo Crossing (33-Me-274) in Medina County, with a Clovis occupation dating to about 11,000 B.C. (Brose 1994). The date of 11,000 B.C. may be used to begin the period.

Climate and Environment

The Great Lakes environment was rapidly changing during this time, and was different from today's environment. Lake Erie itself was much smaller and shallower than it is today. As solar radiation changed, temperatures rose, and the ice of the last glaciation retreated. Seasonality changed, becoming more pronounced. Plant species, with their individual ranges of tolerance, changed too. This in turn determined what animal populations could be supported.

Past assumptions about environment during the Paleoindian period focused on the differences between the glaciated and the unglaciated areas in Ohio (Tankersley and Isaac 1990). Due to rapid environment and species change, a mosaic prevailed, with open areas of grassland and woods of conifers and deciduous trees. There are no modern counterparts for many of the plants and animals that coexisted during the Paleoindian period. These areas supported high populations of large animals and thus attracted hunting and gathering human populations.

Economy and Land Use

The Paleoindian economy was flexible, perhaps driven by large animal hunting. Hunting the bigger game animals available would have been the most cost effective; however, Paleoindians were pragmatic and it is likely they were opportunistic enough to take as food whatever resources were found. It is recognized that there was not a single Paleoindian economy, but a variety of adaptations geared to regional circumstances (Seeman 1994). What was hunted changed over time as the climate and environment changed.

Data now accumulated shows there was not a mass extinction of megafauna, but rather a time-transgressive extinction. First mammoths disappeared, followed by horse, tapir, camel, and bison. It is assumed that the largest, gregarious herbivore in Ohio would have been the caribou, but bison may also have been important. All these animals used large territories. The relatively homogenous distribution of certain quarried lithic materials indicates Early Paleoindians used large territories as well (Seeman 1994).

During this period, it is more appropriate to speak of land use, rather than settlement pattern, as people lived in band-level, highly mobile societies. Most Paleoindian sites are on open, well-drained land surfaces situated near water. Noble's Pond (33-St-357) in Stark County,

a large, multiple-activity base camp, is one of the best known of these sites. Continuing investigations conducted by Kent State University at Paleo Crossing (33-Me-274) in Medina County may provide additional data on site type and chronology. Of the few sites found in caves, Krill Cave (33-Su-18) located within Summit County is a good example. Ohio sites include lithic quarrying, lithic manufacture, hunting camps, and base camps.

Technology

Our knowledge of technology from this period deals mostly with lithics, as this is what is best preserved in the archaeological record. At this point, there is a problem determining what Paleoindian is, because Ohio has few sites with good chronometric dating. Consequently, regional archaeology for this period relies heavily on cross dating. This means looking at outlines and shapes of Ohio lithics and comparing them with tool styles from regions with good chronometric dates—New England, the High Plains, and the Southwest.

Projectile points considered diagnostic of the Paleoindian period are: Clovis, Gainey, Parkhill, Barnes, Crowfield, Holcombe, Hi-Lo, and Agate Basin. Other tools include trianguloid scrapers, spurred end scrapers, side scrapers, drills, wedges, limaces, gravers, blades, and burins. Paleoindian craftsmanship, especially as it pertains to the production of fine, fluted projectile points, is exceptional. Flint Ridge and Upper Mercer cherts, the best quality raw materials in Ohio, were sought out, and tools were extensively salvaged and recycled.

Cultural Complex

Current data shows the Clovis culture to be the oldest unambiguous cultural complex to be present in Ohio. Clovis culture generally entered Ohio moving from south to north and from west to east. This data is based on lithic materials moving the greatest distances from their source to their location in the archaeological record. It may not be assumed that a single projectile point style represents a single culture, as various point styles have been found in contemporaneous use, such as in the Cody complex of what is now the Western United States.

In the west, there are numerous chronometric dates for the Clovis culture, and there appear to be possible overlaps with other cultural complexes, such as Folsom. There is some debate among archaeologists as to the nature of cultures predating the Clovis culture in what is now the United States. There is a need for unambiguous dates associated with archaeological sites before this question can be resolved.

Several other possible pre-Clovis sites have been identified in the northwest and southeast United States. Meadowcroft Rockshelter in Jefferson County, Pennsylvania has been identified as another possible pre-Clovis site and it is the closest such site to Ohio. Although the radiocarbon dates have been contested, preliminary dates for Meadowcroft Rockshelter fall between 16,000 to 19,000 years ago (Swaminathan 2014). It is assumed there are early cultural overlaps in Ohio, but more radiocarbon dates for the Paleoindian period are needed to be certain.

The Archaic Period (8,000 - 1,000 B.C.)

The term Archaic was introduced in 1932 by William Ritchie to describe the Lamoka phase of central New York State. Decades later, the Archaic has been described as the period of migratory hunting and gathering peoples continuing into environmental conditions that are approximate to those of the present (Willey and Phillips 1958). The Archaic period in Ohio begins between 8,000 and 7,500 B.C., depending on location. The period is lengthy and very

fluid with gradual adaptations to the changing environment. There are differences between the early and later part of the period. Cultural differences between northern and southern Ohio become more accentuated towards the end of the period and after 3,000 B.C.

Climate and Environment

There were changes in climate during the Archaic. The early climate was moister and cooler than today. Toward the middle of the period, during the Altithermal, average temperatures were higher and rainfall was less than today. The climate settled into patterns approximating those of today as the Archaic ended. By the end of the period, Lake Erie was filling to modern levels.

Due to changes in the environment in post-glacial times and the correlated fact that the exploitative potential became so much better, a higher population could be maintained. The archaeological record reflects this increase. From the beginning to the end of the Archaic period there was a transition from coniferous trees to deciduous trees. Deciduous trees such as oak, hickory, and walnut have much higher potential for human usage than the earlier conifers. There was no substantial grassy understory beneath the spruce and pine trees of the forest—just the needles on the ground. Without the grassy plants there were few grazing animals in the forest. When deciduous trees became predominant as the temperature warmed, understory became diversified, animal life prospered, and the people who hunted them followed. The paucity of artifacts representing the Early Archaic as opposed to Late Archaic is probably a function of this transition.

Economy and Land Use

Archaic sites are located all over the state. Small temporary camps near water are the most common type of site for the beginning of the Archaic. In northern areas many glacial kames, or hills, were inhabited at one time or another, especially if they overlooked ponds or small lakes. Throughout the state many Archaic campsites are located along rivers. Some sites were reoccupied, pointing to their long-term productivity. These sites yield masses of archaeological materials and some evidence of deep middens of worn-out tools, debris, and fire cracked rock. Archaic sites are usually dated by typology and sequences of these materials. Krill Cave is a good example of the use of this methodology and has yielded a temporal sequence beginning in the Early Archaic for the site (Prufer et al. 1989).

During the Archaic, as with the Paleoindian, there is a lack of evidence for permanent, sedentary occupation. Post molds, one good indicator of permanent settlement, are almost unknown. The few that have been found probably represent some sort of windscreen or lean-to rather than houses. Temporary occupations were a natural outcome of the complex Archaic land use systems. Within seasonal economic cycles governed by environment, many tasks had to be performed. Human populations were higher and band territories smaller than during the Paleoindian period.

As populations of large animals declined, reliance on smaller mammals, birds, plants, and fish resources increased. The results were regional adaptations—generalized hunting and gathering in response to the environment. White-tailed deer, elk, raccoon, and small mammals, turkeys and other birds, fish, turtles and shellfish, fruit, acorns, nuts, and edible tubers were all included in the optimal foraging formula. Seasonal site use may be determined by the contents of the archaeological record. Spring use may be indicated by an increase in fish remains and

migratory waterfowl due to increased availability. Summer may see an increased use of fruit and freshwater mussels due to seasonal availability.

Underground pit features and an absence of hibernating or migratory game may indicate fall storage of nuts and meat, and winter reliance on stored food. Deer hunting remained a year-round activity. Year-round use of large base camps may be seen toward the end of the Archaic in southern Ohio. This settlement pattern has not been found in northern Ohio.

Technology

Technology for the beginning of the Archaic continues to focus on chert projectile points. Generally smaller points with stems, corner notches, or side notches replace Paleoindian points. Projectile point types increased over time. Those considered diagnostic might be grouped together into type clusters. These cluster types include Kirk, Brewerton Corner Notched, LeCroy, and Late Archaic Stemmed. Tool kits continued to include drills and scrapers. These are often casual, expedient tools. Raw materials for these tools were less selective than during Paleoindian times; more local raw material was used. Decreasing territory size may have restricted access to distant material resources.

During the Archaic, additional tool manufacturing technologies were developed. First chipped stone and then ground stone tools appear. Raw materials for ground stone tools include slate, granite, and various base rocks. Ground slate tools include knives and projectile points. Later tools manufactured this way include bannerstones, or atlatl weights. These weights were slipped on to a wooden spear thrower, or atlatl, to increase its effectiveness. Occasionally copper was used as raw material for projectile points, knives, awls, and ulus. Copper, native to the shores of Lake Superior, was mined and hammered into the required shapes. Sometimes the copper was heated prior to working it. Archaic peoples did not smelt or cast copper.

New to the tool kits were woodworking and plant processing tools. Woodworking involved: axes (full- and three-quarter-grooved), chisels, and various gouges and adzes. Most of these tools were made of pecked and ground stone. It is assumed that wood tools were made, but they do not survive in the archaeological record due to poor preservation conditions. For the same reasons, bone tools are rare in Archaic assemblages. Plant processing tools included manos and metates, and mortar and pestles. These tools were large and heavy and were not easily carried from site to site.

Tools were developed for exploiting fishing and aquatic food resources. Regional adaptations to riverine and lake environments added turtles, shellfish, and a wide variety of fish to the diet. Equipment found for hook and net fishing was made from stone, copper, wood, bone, and plant fiber. Early containers were made of wood, bark, animal skin, or woven of plant materials. Traces of ceramics have been found at Late Archaic sites. These were large vessels with thick walls and coarse crushed rock temper to strengthen them. In addition, vessels carved of soft stone such as sandstone, steatite, or soapstone have been recovered. Fragments of these vessels have been found in Ohio, though the raw material indicates they probably originated farther east. Unlike other vessels, those of steatite could be heated to high temperatures for cooking.

Cooking was done over open fires, in animal hide containers using heated stones or earth ovens. Containers were also used for food storage. As technology improved, food could

be stored for longer periods in pits. Cupstones were used to start fire through friction of wood and kindling. All of this evidence points towards increased sedentism through time.

Cultural Complex

Increased cultural complexity may be signaled by more elaborate mortuary practices. Grave goods infrequently accompanied burials in northern Ohio. Copper beads and marine shell beads are rare but point to some type of exchange in exotic goods. These types of personal ornaments are more common both in quantity and variety in burials in southern Ohio. Objects include cannel coal beads, red ochre pigment, copper beads, marine shell beads, bone hairpins, and tubular pipes. The pipes were for smoking, though no evidence of tobacco exists for this period. Ritual dog burials and the "medicine kits" of shamans have also been found. Over the course of the Archaic, the same sites were occupied repeatedly. This period is not static, but the changes are in volume rather than in pattern. Population, reliance on a variety of food resources, technology, and sedentism all increased from the Early Archaic to the Late Archaic. Many of the patterns of the Woodland period were anticipated by the practices of the Archaic period.

The Woodland Period (1,000 B.C. – A.D. 1,000)

Ceramic vessels became more abundant and widespread during the Woodland period. This technological innovation appeared first in the Upper Ohio River Valley about 1,000 B.C. and in the Lower Ohio River Valley about 500 B.C. This is consistent with a pattern of diffusion from the East where pottery appears even earlier (Seeman 1986).

The Woodland period may be broken down into Early (1,000 B.C. to A.D. 1), Middle (A.D. 1 to 400), and Late (A.D. 400 to 1,000) subdivisions. Rather than dealing with traditions that differ by region in Ohio first, general changes will be discussed for the Early, Middle, and Late Woodland periods.

Economy and Land Use

As with the increase of ceramic technology, the ongoing development of horticulture out of Archaic practices enhanced the Woodland lifeway. It allowed greater control over food supplies, increased sedentism, and set the groundwork for increased leadership roles over food surplus and scarcity. Early horticulture was not intensive and was practiced on scattered "homesteads" by small family groups. As swidden plots wore out, or as resource availability shifted, groups moved on. Plants cultivated during this period include squash, gourd, sunflower, maygrass, goosefoot, sumpweed, and a little barley. The seeds of many of these plants show evidence of human improvement over time. Evidence for plant cultivation is much clearer for southern Ohio than in the north, although evidence for squash cultivation has been found as far north as the Lake Erie shore.

During the Early Woodland, temporary open camps and rock shelters were used for a variety of activities as witnessed by their great diversity of artifacts: ceramics, beads, celts, pipes, hoes, and plant remains. Gardens were possible in both upland and valley contexts. Flint quarries and workshop sites are also documented. As self-sufficiency improved, these small gardening groups were able to develop into territorially based lineages. The use of specialized ceremonial and mortuary sites at this time may have helped to solidify isolated family groups and at the same time served as territorial markers. These sites are often referred to today as "burial mounds."

During the Middle Woodland, settlements appear to be more concentrated than during the preceding Early Woodland period, especially along major river valleys and at major confluences. Conversely, upland regions show evidence of partial abandonment and sporadic use. Additionally, the construction of ceremonial earthworks in the major river valley regions takes place on a grand scale. Increased cultivation continued to improve the plants of the Eastern Agricultural Complex (maygrass, goosefoot, and sumpweed), as well as squash and gourds. Maize is seen for the first time in Ohio. Hunting and gathering continued. Although no evidence for tobacco has been found in Ohio at this time, it has been found in adjacent areas. Tobacco seeds are small and difficult to recover.

By A.D. 400, the Middle Woodland pattern of land use, habitation, and ceremonialism ceased. This does not appear to be due to a great rise or fall in the population, nor to migration in or out of the area. True year-round, nucleated villages appear in central and southern Ohio. Year-round use of a village, with several generations together, resulted in more sites with much higher archaeological visibility. These sites show little evidence of overlapping features, indicating short-term permanence, probably less than 50 years for each site.

No startling change in subsistence is indicated in the archaeological record. Maize cultivation rose slightly and hunting continued as it had throughout the Woodland period. Diets were still supplemented by gathered foods, especially nuts. Some Late Woodland houses were circular and large enough for multiple family use. The houses were constructed of bent poles covered with woven mats or animal skins. In addition, rock shelters were frequently used during this period. Many of these sites are set apart by a completely different set of artifacts. The artifacts indicate short-term cold season use, and no base villages with comparable artifacts are known. This may indicate two contemporaneous cultures in the area.

The bow and arrow were introduced in Ohio about A.D. 750. Though there is no evidence of different prey being favored; it may be assumed this large technological advance did increase the quantity of meat protein available for consumption.

Technology

As in earlier periods, it is assumed that wood was an important material for creating tools. However, wood does not survive in the archaeological record due to poor preservation conditions in this region. What tools are missing will never be known, but handles, awls, bowls and other objects are likely. With the rise of horticulture, it is probable that wooden tools included digging sticks and hoes with wood or shell blades.

Woodland flint knappers produced a variety of projectile points. Points for hunting included Kramer, Buck Creek Barbed, Cresap, and Adena Stemmed for the Early Woodland and Hopewell periods, Stuben Expanded Stem and Lowe Flared Base of Flint Ridge flint for the Middle Woodland period. In both cases, high quality Ohio flint was the raw material of choice.

During the Late Woodland, projectile points include Lowe Flared Base, Jack's Reef Corner Notched and Pentagonal, Raccoon Notched, and Lavenna. Raccoon Notched and Lavenna points were utilized for the bow and arrow. These points were smaller and were manufactured differently.

Middle Woodland tools include unifacial prismatic blades struck from tabular cores of Ohio flints. Workshop sites are in evidence near flint sources. These blades could be slot and pitch hafted to wooden bases to create multipurpose tools. The blade industry did not continue into the Late Woodland. Woodland ceramic vessels were modeled after the steatite ones; they were heavy, thick walled, flat bottomed and had lug handles. Though they were awkward, these

vessels were taken everywhere; this indicates their importance in food processing (Seeman 1986). Over time vessel walls become thinner; rounded ones replaced the flat bottoms, and the lugs were removed. Refinement in ceramics continued throughout the Middle Woodland. Vessels became thinner, more symmetrical, and more diverse in shape, decoration, and use. Production was still on a household level, but vessels from other areas are found in the archaeological record. Late Woodland ceramic technology was improved by the introduction of shell temper.

Woodland Ceremonialism

Early Woodland ceremonial complexes included Meadowood in northeast Ohio, and Red Ochre along the Ohio, Scioto, and Miami valleys. Red Ochre had mortuary practices involving mounds. These mounds were small and simple and were separate from the small habitation sites (Seeman 1986). It is assumed that these visible markers were used to delineate territories. By building monuments to their ancestors, these groups were declaring their legal right to the land. These mounds were more than burial sites: they served as social gathering places (Seeman 1986).

Mortuary practices included bundled and flexed burials, cremations, and ossuaries with dozens of burials. Artifacts from ceremonial contexts include hematite plummets, tubular pipes with plugs, boat stones, bar amulets, and copper beads and "c" shaped bracelets.
About 500 B.C. a cultural tradition given the name Adena is found in central and southern Ohio. This designation includes so much variation that it should probably be abandoned in favor of more specific, drainage-based taxonomic units. The term "Adena" designates little more than an increasingly visible mound-construction program after 500 B.C. The Adena built mounds in a wide variety of sizes and locations, singly or in groups, with or without associated earthworks (Seeman 1986). These mounds grew in size over time through repeated ceremonial use. Post molds beneath Adena mounds testify to the existence of preceding submound structures. Considering the earlier Woodland practice of separating ceremonial and habitation sites, it is assumed that the structures served some type of public ceremonial function. Mortuary practices include cremation, partially burned bones, bundled and extended burials with or without shrouds and goods. Extended burials are also found in log tombs in subfloor pits and above the original floor. Diagnostic artifacts from Adena ceremonialism include various gorget styles, copper bracelets, incised tablets, and tubular pipes.

About A.D. 1 another cultural tradition arose, known now as Hopewell. Greber calls this period a florescence of art, architecture, and ceremony (Lepper 1995). Though found all over the mid-continent, Hopewell's greatest impact was in the mid-Ohio region. Hopewell mounds and earthworks are unprecedented in complexity and elaboration. The motivation for such monumental building is not known. The labor force needed was obviously great, but what led diverse groups to come together is unknown. There is no evidence of kings or nobles commanding common laborers or evidence of armies to compel slaves.

Hopewell earthworks were generally geometric and constructed on broad flat river terraces. The earthworks typically enclosed places of ceremonial significance. Hopewell mounds were built over structures. These structures were often large and may have had more than one level. The engineering indicated by some post mold patterns was more advanced than that of preceding cultures. The structures and the mounds over them were again the result of a cycle of mortuary and civic ceremonial activities. Once the function of the building was fulfilled, it was

taken down or burned and the area covered with earthen mounds. Sites may have been used for generations and mounds and other remains accumulated (Greber 1991).

The earthworks consist of circles, squares, and octagons with spaces between the walls.

The intentional spaces between the walls of the earthworks correlate to solar and lunar events such as the summer solstice moon rise. The shapes and lengths of the walls of the earthworks are amazingly consistent between sites. The Hopewell culture is also known for its art as evidenced in its artifacts. Much of what was produced is unmatched by anything from other Ohio cultures.

Diagnostic items may be found with burials; about two thirds of all graves have associated goods. However, the greatest numbers of objects come from non-tomb contexts, including some from domestic contexts. From Lake Superior, copper was made into earspools, celts, plaques, beads, headdresses, cutouts, and pan pipes. Mica from the southern Appalachians was worked into mirrors and cutouts of various designs. Effigy pipes were made from Ohio pipestone and exotic materials. Other exotic materials included quartz crystal from the South and obsidian from the Rocky Mountains for ceremonial projectile points. Marine resources from the Gulf Coast included shark teeth, conch, and sea turtle shells. These goods represent both trade networks and direct acquisition from the source.

Little from Ohio is found in other Hopewellian contexts outside the state. Few textiles have been preserved due to Ohio's temperate climate; however, when found in association with copper artifacts, metal oxides formed resulting in preservation. Long fibers from Woodland plants such as nettle, milkweed, yucca, pawpaw, basswood, and bluestem grass were used alone or in combinations in a single item. Occasionally rabbit hair was included. These fibers were made to form a yarn that was twined into items such as headdress, tunics, and burial shrouds and canopies (Power 2004).

By A.D. 500 people were living in large villages and the monumental mound building had ceased. Gone were many of the prestige ceremonial objects. Some burials were added to existing mounds; other burials were found in villages, in middens or shallow cemetery areas, or outside villages in small low stone mounds. The Hopewell did not vanish but for reasons not entirely understood, this way of life was no longer advantageous to continue.

The Late Precontact Period (A.D. 1,000 – 1640)

The term "Late Precontact" period is generic and non-committal. A.D. 1000 signals the beginning of intensive maize agriculture over simple maize horticulture, and settlement in large permanent villages. Lifeways changed a great deal, expanding and intensifying village settlements, horticulture, and warfare, along with the introduction of the bow and arrow. By the end of the period, Native peoples began to abandon northeastern Ohio, and this remained the case for the next century. Contact with Europeans caused the first startling changes in centuries and is documented for southern Ohio about A.D. 1650.

Climate and Environment

The climate remained stable and much like today. Then, as now, many areas of the state experienced slightly warmer year-round temperatures benefiting agriculturists. These areas saw consistent use from the Middle Woodland onward. Open land, whether cleared by swidden agriculture or naturally occurring prairie and flood plains, was in great demand for agricultural use. Agriculturally developed lands also drew game birds and animals out of wooded areas and

thus, benefited hunters. Forests were not sufficiently cut to interfere with animal resources until
well after the Europeans' arrival. Rivers and waterways were stable and well used, as was Lake Erie.

Economy and Land Use

Village sites are the best known of all Late Precontact site types. Broad differences in village patterns occur in northern and southern Ohio. Northern villages were fewer, smaller, and were not as highly organized as those in the south. Some houses were large and multi-family, multi-generational structures resembling the long houses of the Northeast. Southern villages were more numerous, larger, and were organized around a central plaza or central mound. Houses were smaller for single-family use. Villages in both areas had stockades with one or more rows of posts and ditches. By the middle of the period northern villages may have numbered 200-300 people and southern villages numbered 400–500 people.

By A.D. 1200 agriculture focused on eight-rowed "Northern Flint" maize adapted to short growing seasons. Beans were planted along with squash and gourds. Wild plants continued to supplement the diet. Bell-shaped pits dug in coarse-grained and well-drained sediments were used to store the harvest. Pits were lined with grass mats, held up to a metric ton of maize and other foods, and were covered over with skins and tamped earth.
Maize agriculture was probably not practiced by Ohio peoples on the same grand scale as some Mississippian cultural traditions to the south and west. However, skeletal studies reveal a very strong dependence on maize in Ohio. Human remains recovered from Ohio also show evidence of iron deficiency and other diseases. Hunting patterns focused on deer, elk and later, bison. Populations of this period were higher; however, overall health appears poorer than in the preceding Woodland period.

Technology

Late Precontact flint tools include triangular arrow points - Madison and Fort Ancient types- tear-shaped scrapers, drills, and utilized flake tools. Bifacial bi-pointed knives were also used. Locally available flint was utilized rather than higher quality chert from distant quarry sources. Other evidence for extensive inter-regional exchange is also rare. Long distance trade may have been disrupted by increased warfare at this time.

Late Precontact groups used bone and antler to manufacture lithic points and other tools such as fishhooks, needles, etc. Bone beamers were used to process animal hides. Wood tools are again scarce but must have followed patterns of those previously manufactured. Extrapolating from historic records it is also likely that there were spoons, mortars, and pestles,
and cradleboards.

Ceramics show very distinct differences through time and across space. In the North from early to late, styles include Cordmarked - Fairport Harbor, Reeve Incised ware with geometric patterns, and Tuttle Hill with notched collars. Slight changes in the use of temper occur over time; shell temper did not appear until circa A.D. 1250. Across space one tradition's ceramics were entirely shell tempered, while its neighbors were partially or mixed shell tempered.

Southern vessel forms were similar to their northern counterparts. They had strap handles or lugs, were collared, and many were decorated with incised rectilinear and curvilinear

guilloches. Ceramic styles varied by river drainage. Shell temper was used by A.D. 1200. Late in the period, vessel forms increased in variety to include bowls, and saltpans for the evaporation of brine or the cooking of corn bread. Stamped designs were also added to the decorative techniques. Ceramic styles, some now decorated with simple stamped designs, include Feurt Incised, Wellsburg Simple Stamped, Madisonville Cordmarked and Grooved. Salt was collected by placing brine spring water from around rock salt deposits called salines in ceramic pans. The water evaporated leaving the salt. Salt pans were formed in earthen molds lined with textiles (Drooker 1990). The textile impressions remained after firing, thus, preserving a record of the wide variety textiles manufactured. Very few actual textiles or other evidence of textiles remains in Ohio's Late Precontact archaeological record. It may be assumed that textile production remained an important industry throughout this period.

Cultural Complex

The Whittlesey tradition of northeast Ohio represented the first sedentary residents in the area. They grew beans, squash, and maize in bluff top villages overlooking the Cuyahoga, Chagrin, Grand, and other rivers. The Whittlesey occupied the area for 600 years and moved on about A.D. 1650. Big Bend (33-Su-227) is a Whittlesey site located in Sand Run Metro Park. A radiocarbon date of AD 1450 to 1650 establishes it in the Late Precontact Whittlesey Tradition (Pacheco 1998).

Neighboring the Whittlesey to the west, along the Lake Erie shore, was the Sandusky tradition. Whittlesey ceramics reveal close cultural ties to the Sandusky tradition. These two groups probably spoke the same language and traded in food and material goods. They were much more like each other than either was like the southern Fort Ancient Tradition.

The Fort Ancient tradition occupied all of southern Ohio and surrounding areas. It lasted for the entire period and may be divided into Early, Middle, and Late. Some Fort Ancient villages reflect internal subdivisions, as groups of houses have artifact styles in common. Ceramic patterns may differ from one house cluster to another or may be present in opposite halves of the village. This pattern and others like it may indicate moieties or clans. Mounds were also located next to Fort Ancient villages.

The lifeway of the Late Precontact period represents very distinct changes in subsistence, settlement, and technology, but the baseline hunting and gathering lifestyle persisted. Late Precontact groups were organized as egalitarian tribes. Each tribe presumably included several villages and was allied and/or at war with others. By the end of the Late Precontact period southern Fort Ancient peoples' contact with European goods is evident in the array of goods found in archaeological contexts. However, they did not have direct contact. In northern Ohio, Native peoples abandoned their area for nearly a century, from A.D. 1650 until Native American groups of Wyandot and Ottawa arrived about A.D. 1740.

Protohistoric

Protohistoric means that evidence of Europeans, usually in the form of artifacts traded into an area, is found at archaeological sites before actual Europeans traveled to that area. By A.D. 1550 European settlers had made contact with Late Precontact peoples in western Pennsylvania. Recognition of protohistoric sites in Ohio rests in finding European trade items before there is written records of contact with specific indigenous peoples (Skinner and Brose 1985). Items include wire-wound beads, copper tinklers, and Native jewelry made from imported European goods. Throughout this period, northeastern Ohio was only sparsely

populated by transient Native American groups, often from other areas (Jackson and Harris 1992).

It is important to understand that, in general, Ohio did not seem to ever have large populations of Native groups in the northern part of the state. There seemed to have been considerable seasonal migration because there were abundant resources including animals, fish, and fowl for food, and raw materials and good wetlands for gathering. The very small populations of Native peoples shifted camps frequently so that there was little strain on the resources and overhunting and overfishing did not occur. The Native populations also had an intimate knowledge of the animals, protecting them at certain seasons and not wasting resources.

Hunting especially was hard work and the weapons were not always effective, so a day of hunting might end with little or some small game. However, some organized group hunting probably occurred when there were enough hunters to do so. Elk and bison were hunted in the region until the late 1700s but then seemed to have disappeared, but deer was a major food animal and there were an abundance of fur-bearing animals. The pelts from these animals were used to trade through networks east and north, ultimately to French and British traders.

Several factors contributed to the sparseness of the Native population. The northeast region was heavily forested, which is not good habitat for hunting deer, a major food source for the Native population, as deer tend to eat small brush, twigs, and grasses, but there is little forage in deep forest. Most of the game and food sources were in the river valleys, wetlands, and along the shores of Lake Erie. The land that became Portage Township in particular was hilly in some places and very swampy in others lacking much tillable land. Native American groups, however, would have found these wetlands rich in food sources as well as fur-bearing animals.

Historic Context

A historic context is developed to construct a framework under which potentially eligible inventoried building remnants, structures, and sites may be evaluated. The intent of this section is to develop broad and specific historic contexts for the project area that can be used to predict the location and/or type of historic sites and for interpreting the significance of historic archaeological resources documented during the field reconnaissance. These contexts are basic in scope yet specific enough to encompass variation in land use and settlement patterns in Summit County.

This study of COLRN first addresses the historic Indigenous Peoples in the Western Reserve; second, the general regional history; third, a brief history of Boston Township; and fourth, the specific area within and adjacent to COLRN.

Historic Indigenous Peoples

The 1650s were the beginning of a long period of considerable tribal warfare by the Haudenosaunee (Iroquois Confederacy) prompted by the need to protect and expand their fur trading. Often called the Beaver Wars, this competition led to increased Haudenosaunee expansion west and thus to more incursions into northern Ohio. The Seneca, the westernmost tribe of the Haudenosaunee, hunted and trapped through river valleys west of their home area in the Finger Lakes region, gradually making their way into the northeastern Ohio area. They did not settle there but hunted and trapped (Finney 2002).

During the 1730s, the Wyandot settled in portions of eastern and northern Ohio and by the 1740s some had moved into the Cuyahoga Valley, remaining until about 1753 (Wheeler-Voegelin 1974). In 1742, the French operated a trading post near the Cuyahoga River (see below). This post drew a large population of displaced tribes totaling in approximately 2000-2400 individuals (Finney 2002). In 1743, Robert Navarre was sent from Ft. Detroit to inspect the trading post. During his visit he recorded Senecas, Cayugas, Oneidas, Onondogas, Mohawks, Lenape, Mohican, Abenakis and Chippewas made up the population of "Mingo Town" and a small population of Odawa lived at the trading post (Tanner 1974, 1987; Wheeler-Voegelin 1974). The term "Mingo" was used to refer to groups of Haudenosaunee living in Ohio. The location of "Mingo Town" is unknown, despite appearing in the early mapping (see below).

In the 1750s, the Wyandot granted a large portion of their territory to the Lenape (Delaware), who originally lived on the eastern seaboard in present-day New York, New Jersey, and Delaware. Many Lenape were Christianized in their original home territory by Moravian missionaries who moved with them on the westward migrations. The Moravian missionaries became spiritual leaders of the Native groups and advisors in relations with the European settlers. They also stayed with them during forced moves, raids, and massacres (Zeisberger 1885). The Lenape built small villages and farmed, a tradition from their eastern homelands. It is reported that the Delaware had cleared 12.14 sq km (3,000 acres) at the forks of the Muskingum River by 1761 (Wheeler-Voegelin 1974, Jones 1983). Most likely they had similar clearings throughout their territory.

Clearing and farming occurred in the Tuscarawas River valley and to a lesser degree in the Cuyahoga River area. These settlements would later be colonized by Euro-American colonists (Jones 1983). Parts of two bands of the Lenape migrated into the Cuyahoga and Tuscarawas River valleys (Delaware Indian Conference and Symposium 1998). There were also several Christian Indian villages in the Tuscarawas River Valley, and these were subjected to numerous raids.

By the late 1700s and early 1800s seasonal hunting camps were often found on both sides of the Cuyahoga Valley. These camps were very temporary. Furthermore, because of their exposure to European-based technology on the east coast, the groups in these camps used many tools of the time and did not manufacture as many of their traditional tools or weapons.

Early European Explorations of the Cuyahoga Valley (1650 – ca. 1775)

The exact date for the European arrival in Northeast Ohio is unknown. The first map, *Amérique Septentrionale*, showing Lake Erie with any degree of accuracy was published by Nicholas Sanson in 1650. This map also appears to show the lower section of the Cuyahoga River. It is unknown who Sanson's sources were regarding the geography, but researchers assume they were French missionaries who had visited the region prior to 1648 (Brose 2022).

The Beaver Wars prevented Europeans from directly accessing what is now Northeast Ohio until the mid-1650's when French explorers began to visit the shores of Lake Erie. In 1662 the royal charter for the Colony of Connecticut gave it claim to the land which is now Northeast Ohio. This territory extended to the Mississippi River, bounded on the north at 42 degrees 2 minutes latitude and on the south at 41degrees latitude. The European and Euroamerican presence appears to have remained confined to the Erie shores through the remainder of the 17th century.

The 18th century saw the establishment of some trading posts and more regular European travel through what is now the Cleveland area, but there is little evidence that any visitation occurred south of Tinker's Creek until after the British victory over the French in the North American theater of the Seven Years War. The only first-hand account of the upper Cuyahoga River from this period was written by James Smith, an American settler who was captured by the Lenape at Fort Duquesne in 1755. He was eventually adopted by a Mohawk family who brought him to the Ohio Territory for a hunting expedition. His account of his travels through the area includes the first written description of the upper Cuyahoga River. That same year, Lewis Evans drafted a map showing further detail of the upper Cuyahoga than previous maps, but the course of the river was not accurate. This map shows several items of note- two settlements, "Tawas" and the above referenced "Mingoe's Town", the Cuyahoga-Tuscarawas Portage Path, various other trails with their lengths, and a trading post called "French House." It is believed this "French House" is referring to the trading post (mentioned above) established by Sieur de Saguin in c. 1742. Its exact location is unknown. Karl Grismer states this trading post was located at what is now the village of Boston (1965). However, the Evans map indicates it being located across from the confluence of Tinkers Creek. The exact locations of any of these mapped historic sites remains unknown.

After the Seven Years War, the British began to send troops into the Ohio territory to subdue the confederation of tribes that formed under the leadership of Obwaandi'eyaag (Chief Pontiac). This confederation's goal was to combat the British takeover of the Great Lakes region. Thomas Hutchins was a geographer that traveled with Henri Bouquet's British force from Ft. Pitt to the Muskingham River. Hutchins' 1765 map is the first map to show the complete course of the Cuyahoga River. His rendering of the Cuyahoga shows two Indigenous settlements on the river, "Ottawas Town" and "Cuyahoga Town." According to the map, Cuyahoga Town was located near what is now Sand Run Metro Park, in the Merriman Valley neighborhood of Akron. Ottawas Town is shown further north, probably within what is now the Cuyahoga Valley National Park. Due to the geographical inaccuracy of the 1755 Evan's map, it is unknown if these correspond to "Tawas" and "Mingoe's Town." Again, none of these historically named settlements have been located in the archaeological record.

Western Reserve Frontier Era (ca. 1775 - 1795)

During the American Revolution (1775-1783) Connecticut's claims in the Ohio territory were unsafe for colonization. Only a few British and Euroamericans stayed within the territory at trading posts or in small habitation sites. The contemporary literature mentions that various Indigenous Tribes had temporary hunting sites in the Cuyahoga Valley, but no one occupied the area permanently.

In 1786, the now State of Connecticut relinquished most of its land claims west of Pennsylvania. It retained a portion south of Lake Erie which became known as the Connecticut Western Reserve.

The only known Euroamerican settlement in the Cuyahoga Valley during this period was established in 1786 by a group of 95 Christian Lenape and six Moravian missionaries, including John Heckewelder and David Zeisberger. "Pilgerruh" was a temporary village created to raise crops and overwinter during the group's return journey from Detroit to the Tuscarawas River valley. Heckewelder mapped its location near the confluence of Tinker's Creek and the Cuyahoga River, however it has never been located in the archaeological record. The settlement was abandoned ten months later after the group changed its plans to travel south

after being warned of violence in the Tuscarawas Valley. They instead relocated west towards Sandusky.

The Northwest Indian War (1785-1795) continued to prevented colonization in the Connecticut Western Reserve. This conflict was between the United Indian Nations (Northwestern Indian Confederacy), a pan-tribal coalition led by Weyapiersenwah (Blue Jacket), Tecumseh, and Mihšihkinaahkwa (Little Turtle), and the United States. The goal of the Tribes was to halt American incursions over boundary lines established in previous treaties between the United States and Indigenous lands. In 1795, The United Indian Nations and the United States signed the Treaty of Greenville, formally ending the Northwest Indian War. The treaty redrew the boundary of the United States and Indigenous lands, making the Cuyahoga River the boundary (Figure 5). This officially opened 70% of the Western Reserve to American settlement (Barrow 2022).

Shortly after the signing of this treaty, Connecticut sold three million acres of the Western Reserve to the Connecticut Land Company, a land speculation company formed by fifty-seven of Connecticut's wealthiest men. Moses Cleaveland, who held the second and third largest shares in company, would go on to found what is now the City of Cleveland. The company began surveys and sales of property in 1796. However, due to company mismanagement and general mistrust in the national political situation, very few sales were made.

Early Settlement Era – Boston Township, Boston Village, Peninsula and Summit County (1796-1824)

The early settlement era of Northeast Ohio officially begins in 1796 with the founding of Cleveland and the surveys of the Western Reserve. Boston Township was originally laid out as Town 4, Range 11 and classified as an "equalizing township." These townships were created by the Connecticut Land Company to compensate investors for inferior land they may have acquired elsewhere. The township is divided by the Cuyahoga River and features steep terrain and several drainageways of Cuyahoga tributaries.

The portion of Boston Township east of the Cuyahoga was surveyed in 1797, but the western half would not be surveyed until 1805. When Boston Township was first opened for settlement, the Cuyahoga Valley was only accessible by the river itself or trails.

David Hudson arrived in the Western Reserve in 1799 and traveled through the Cuyahoga Valley by boat until he was grounded in shallow water near what became the Village of Boston. He then cut a road southeast to what is now the center of Hudson, where he founded the oldest city in Summit County. Benjamin Tappen also landed his boats here in 1799 and cut a road to his land holdings in what is now Ravenna (Hatcher 1991). This led the area to be called The Landings at the Cuyahoga (Summit County Engineer 1810).

In 1805, the boundary between Indigenous lands and the United States was once again relocated further west by the Treaty of Fort Industry. This officially removed Indigenous claims to the Western Reserve and opened Boston Township for complete survey. Early histories show that Indigenous people continued to live and visit the area and there was not any known conflict between them and the settlers.

Samuel Wolcott was the first permanent settler in the township, arriving in 1805 (Grismer 1965). He was sent there by General Simon Perkins and other absent landowners to survey the western half of the township. He and his surveying team built a cabin where Boston Cemetery is today (Boston Township 2014).

Two Indigenous temporary camps are mentioned as being in or near what is now Boston upon the arrival of the settlers. "Ponty's Camp" was an Odawa seasonal village located near what is now the intersection of Columbia Road and Riverview Road, on the west side of the Cuyahoga River. It is possible this site was occupied on a temporary basis as far back as the 1790s (Finney 2002). Ponty is often confused in early historic writings with Obwaandi'eyaag (Chief Pontiac). According to early settler accounts, white settlers trespassed in the village during its unoccupied periods to steal tobacco offerings left by the Odawa. Early writings also mention an Indigenous apple orchard near Ponty's Camp (Finney 2002).

Another Odawa village was reported to be located north of Boston Village. Bierce (1854) reported the leader of this village to be Chief Stigwanish, who also had other encampments near what is now Streetsboro and Cuyahoga Falls (Finney 2002, Grismer 1965). Stigwanish, also known as Seneca, was identified as having a friendly relationship with David Hudson and other settlers.

Other settlers arrived shortly after Wolcott. The township was formally organized on January 15, 1811. The exact origin of the township's name is unknown.

According to the early histories, the period directly before and during the War of 1812 was a brief time of tension and trepidation in the Cuyahoga Valley. Conflict had arisen further west in what is today Indiana between Native people and the Euroamerican settlers who continued to ignore treaty boundaries. Shawnee leader Tecumseh and his brother Tenskwatawa (The Prophet) formed a confederacy of tribes in the Great Lakes region. Their goal, like the tribal confederacies before, was to halt white incursions and settlement in Indian Territory. The British government exploited these tensions to open a back door into the United States by being an arms supplier to Tecumseh's Confederacy. War was officially declared between Britain and the United States on June 18, 1812.

White settlers in Boston Township and elsewhere became concerned that the local resident Indigenous people may be members of Tecumseh's confederacy and would attack the settlements. Many temporarily relocated to the larger villages of Hudson, Cuyahoga Falls, and Tallmadge. Those who remained in the Cuyahoga Valley reported Native peoples looking out over the Valley from the western ridges, but otherwise keeping to themselves. The decisive battle between the Confederacy and the United States was the Battle of Tippecanoe on November 7, 1811, with a United States victory. According to the early histories, the Native peoples who had been observed on the western ridges disappeared shortly after the battle (Grismer 1965). It is believed by local historians and avocational archaeologists that the western uplands of the Cuyahoga Valley may contain archaeological evidence of these early 19th century Native encampments (Finney 2002).

The War of 1812 ended after the American victory at the Battle of the Thames. Afterwards, no Indigenous encampments were reported in Boston Township. Most of the settlers who had evacuated returned. The village of Boston was originally a commercial center of the township. A general store was opened in the center shortly after the area opened to settlement. A sawmill and gristmill were built along the river in 1821.The first house was built in what is now the town of Peninsula in 1818 by Alonzo Dee. Peninsula is located where the Cuyahoga takes a severe turn forming a "peninsula" that was attractive for farming. It quickly became the principal center of the township.

Road building began immediately in the early settlement period and many were likely established on previous Indigenous trails. In Boston Township, several of the roads have had name changes, have been rerouted, or have even switched names. Hines Hill Road was

surveyed in 1807 and was originally named Boston Mills Road. The date for the establishment of today's Boston Mills Road from Black Road to Riverview is unknown. It appears on the 1856 Summit County Atlas (Matthews & Taintor 1856) and according to the 1874 atlas was originally called Brewery Road (Tackabury, Mead & Moffett 1874).

Columbia Road was established in 1809 running from the Richfield Township line (Black Road) to the Cuyahoga River. In 1811, Alfred Wolcott, Abraham Miller, and Andrew Johnson surveyed a road from "Pontey's Camp" at Columbia to "the Cuyahoga Portage at Joshua King's." (Summit County Engineer 1810). This road went through several name changes over time. The stretch from Akron to Boston was known as Akron – Boston Mills Road and then later it was called Akron-Cleveland Road. Newspaper articles begin referring to the road as "Riverview" in the 1930s.

This period of extensive road building through the township prior to the War of 1812 shows how inaccessible the area originally was. Settlements were largely cut off from trade and travel from village to village over these roads, many of which were over steep terrain, could take days.

John Melish's account of his attempted trip to Hudson along the Cuyahoga River is an excellent illustration of how difficult the road conditions were. He became so bogged down in mud in Boston Township, he could not complete his journey (Hatcher 1991).

The Canal Era – Boston Township and Boston Village (1824-1861)

As early as the exploration period, a canal system was seen as the most desirable solution to the accessibility issue of Ohio. George Washington and Thomas Jefferson proposed a canal linking Lake Erie to the Ohio River as early as 1787 (Hagerty et al. 1905). Due to the War of 1812 and other funding complications, a canal system wouldn't be designed until 1822. Ground was broken in 1825. The section from Cleveland to Akron opened on July 3, 1827.

The opening of the Ohio & Erie Canal had a massive impact on the economy and development of the Cuyahoga Valley and Boston Township. It not only allowed goods and services to come and go from the once isolated communities, but it also increased the population with the arrival of canal builders and workers. The towns of Boston and Peninsula flourished during the canal era. Boats leaving the township left loaded with lumber, flour, bricks, brooms, barrels, coal, and stone from the local quarries. Boston also became one of the largest boat building centers on the canal. A hotel opened by Watrous and Hannah Mather in Boston is mentioned in 1831 (Bauermeister 2012). Local lore tells of counterfeiter gangs that operated in the ravines and stream valleys of the township, drawn to the area by the locals' prosperity (Grismer 1965).

The town plat of Boston was drawn up in 1834 by County Surveyor Samuel D. Harris, originally developed from the Mather township lots 44 and 45. (Bauermeister 2012). According to shipping tonnage records, the peak of canal operation was in 1851 (Bauermeister 2012). The canal also suffered from infrastructure issues and needed constant repair and maintenance. By the 1850s, railroad lines ran through Hudson, Cuyahoga Falls, and Akron, further impacting the financial viability of the canal.

The Late Development Period in Boston Township (1861 – 1913)

By the 1860s, the canal had fallen into severe disrepair, with further decline setting in during the Civil War. In 1880, the Valley Railway opened, running from Cleveland to Canton. The route through the Cuyahoga Valley followed alongside the canal. While the railroad took

over passenger service, the canal still operated shipping local freight for several decades afterwards thanks to several structural refurbishment efforts.

The railroad further increased the development started by the canal in the Cuyahoga Valley and Boston Township. Four stone quarries owned by the Cleveland Stone Company operated in Boston Township and transported their cut and finished stone via the railroad and canal. The industrial opportunities such as the stone quarries made the township attractive for recent immigrants from Poland, Slovenia, and Italy. (bostontownship.org)

In 1899, the Cleveland-Akron Bag Company opened in the town of Boston. The company built employee housing and a store in the town center. Agriculture remained a staple industry in the township, with some farmers converting to dairy operations in the late 19th century.

The Flood of 1913 immediately rendered the old canal system inoperable, leaving the railroad as the main means of reliable transportation to and from the township.

The Urban-Industrial Period of Boston Township (1914 – 1974)

The Cleveland-Akron Bag Company operated in Boston until 1923. After this last major industry closed, Boston Village remained a residential community with some residents working in local and regional industries such as the Jaite Paper Mill 3.2 km (2 mi) north along the canal. In the 1960s two ski resorts opened in Boston Township. The Boston Mills Ski Area was constructed in 1963 from the western ridge overlooking the village of Boston and Riverview Rd. The Brandywine Ski area on Vaughn Rd. was operated by the same company as Boston Mills. The two ski locations were developed by Harold Stoneman and Thomas Kelsey (The Akron Beacon Journal (Murphey 1963).

As large-scale agricultural activity began to decline in the township and the rest of the Cuyahoga Valley, local citizens and environmental groups became concerned that the Cuyahoga Valley would be developed for larger industries and residential subdivisions. The Akron Metropolitan Park District (AMPD), now Summit Metro Parks, began acquiring properties in the Cuyahoga Valley in 1929, beginning with what is now Sand Run Metro Park. Boston Township properties acquired by AMPD by 1974 included Deep Lock Quarry, the Columbia Run Conservation Area (1970 and 1971), and the Waldo Semon Woods Conservation Area (1974).

The Recreation Period – Summit Metro Parks and the Cuyahoga Valley National Park (1974 – Present)

Although AMPD had been somewhat successful in conserving undeveloped land in the Cuyahoga Valley, federal involvement was necessary to conserve larger areas. In 1974, the Cuyahoga Valley National Recreation Area was established. Afterwards, the National Park Service began to quickly acquire properties throughout the Cuyahoga Valley. Some industry in the Cuyahoga Valley continued after the establishment of the Recreation Area. However, the Jaite Paper Mill closure in 1984 officially ended industrial activity in Boston Township. Over time, NPS expanded its holdings to the majority of Boston Village and the historic township. Under the management of NPS, the Ohio & Erie Canal towpath in Boston Township was readapted into a multi-purpose recreational trail. Some of the historic structures were restored for tourist use, such as the George Stanford House, the Boston Store, and MD Garage. The National Recreation Area was redesignated as the Cuyahoga Valley National Park (CVNP) in

2000. In 2019, the main visitor center for the park was opened in the restored 1905 Cleveland-Akron Bag Company general store in Boston.

Given the historical context of the area, material dating from the exploration period through to the urban-industrial period (c. 1750 – 1974) would be expected within archaeological sites in Boston and the surrounding properties.

Columbia Run Conservation Area SRZ North

This area composes the majority of COLRN and was formed of four parcels totaling .99 km sq (246 acres). It is bounded by Columbia Road to the north, Boston Mills Road to the South, Riverview Road, and Boston Mills Ski Resort to the east, and CVNP to the west. This portion is bisected almost in half, north to south, by a parcel owned by CVNP.

In the 1856 Summit County Atlas, these parcels are included in one large parcel owned by the "C.C. & C.R.R.C" railroad company (Figure 6). No documentation of this railroad company could be located except for a mention in an 1882 court case, Dick v. Railroad Co., 38 Ohio St. 389 (DeWitt 1905). There is no evidence that the railroad company carried out any building or earth moving activity on the property during its ownership. No structures are shown as being in the project area at this time. A small separate parcel is indicated at the southwest corner of the Columbia Rd. and Riverview Rd. intersection. The owner of this parcel cannot be identified do to damage of the atlas. A structure is indicated directly at the intersection, but this location is outside of the project area. Structures are indicated on neighboring parcels, but none appear within SRZ North on the 1856 atlas (Figure 6).

The 1874 atlas (Figure 7) shows that the original property had been divided into four parcels. One belonged to James Black, one to T. Wood and S.C. McNeil. A triangular portion on the south of SRZ North falls into a parcel which belonged to Joseph A. Treat. A small irregular northeast portion of the project area was a parcel belonging to the Valley Railroad Company. A small portion of the project SRZ North also falls into a triangular parcel along Riverview Rd. that was owned by Isaiah W. Fish.

James Black, an immigrant from Ayershire, Scotland, was an early settler, farmer, and landowner in the bordering township of Richfield (ABJ 22 August 1901:2). The Black residence and farm were located at their property in Richfield. A structure is shown on the Black parcel in the 1874 atlas. However, due to the terrain in this area of the property, it is most likely this location is incorrect and this is the same structure shown further south on a neighboring parcel in the 1856 atlas. This location is outside of the project area.

Thomas Wood and S.C. McNeil were Boston Township residents and business partners in a lumber business, a common industry in the Cuyahoga Valley. In 1881, the partnership was dissolved because McNeil relocated to Akron to open a shoe business with his brother. Wood continued in the lumber business. (*Summit County Beacon* [SCB] 1881a:3 and 1881b:4). The ownership of the lumber company indicates that the majority of SRZ North had remained forested at least until Wood and McNeil purchased the property. It is unknown how much of the parcel had been cleared of trees during their ownership.

The Treat parcel extended east to Boston Mills Road, originally Brewery Road. No structures are indicated in the parcel. The Treat family were residents of Tallmadge, Ohio and owned large parcels in the southeast quadrant of that township. A SCB article on May 2, 1888 has Joseph A. Treat living in Tallmadge where he operated a farm (SCB 1888:3).

The Fish parcel was bisected by Riverview Road, the canal, and the railroad, with its eastern boundary being the Cuyahoga River. The portion of this parcel within the project area

is a small triangular northwest section, west of the roadway. No structures are indicated on this parcel.

Valley Railway Co. is discussed above. The portion of the company's parcel in SRZ North does not contain the railroad or any structures. The railroad is shown crossing Riverview Road and Columbia Road just west of its intersection with Riverview Rd. This does not reflect the current alignment of the railroad, which is now located between Riverview Rd. on the east and the western bank of the Cuyahoga River.

The 1874 atlas also shows the alignment of Columbia Road being significantly different from the one shown in the 1856 atlas, curving further to the south. However, the 1856 representation may not have been accurate. The alignment of 1874 is generally consistent with its present alignment (Figure 7).

The 1891 (Figure 8) atlas shows a further subdividing of parcels, nearly consistent with the modern division of parcels in COLRN. It should be noted that this atlas did not map individual structures in rural properties like the previous 1856 and 1874 editions.

The Black parcels remain unchanged from the 1874 map. The Wood and McNeil parcel of 1874 has now been divided into three separate parcels. The westernmost of these new parcels was owned by W.P. Stair et. al., the central parcel by R. Green, and the easternmost parcel by S.C. McNeil. The Green parcel is not within the project area.

W.P. Stair worked for various companies in Akron including Taplin, Rice & Co. He also ran unsuccessfully for public office in Akron. There is no indication of what Stair conducted on his Boston Twp. Property, if anything. In 1884, Richfield and Boston Township commissioners petitioned for a new school district to serve students living in western Boston and Northeast Richfield. The new district was approved, and property owned on the north side of the Columbia Road owned by Robert Keating was selected for the schoolhouse (SCB 1884a:5). However, it was announced later that year that the Stairs transferred ¾ -acre to the Boston Township Board of Education for the schoolhouse construction (SCB 1884b:4). The schoolhouse is shown on the Stair Parcel immediately south of Columbia Rd on the 1891 Atlas (Figure 8).

The ownership of Valley Railway Parcel in 1874 had been transferred to a W. Fuller by 1891. Fuller's property is showing to extend to the opposite side of Riverview Rd. to the Cuyahoga River.

The 1903 Cleveland USDS Topographic Quadrangle is the earliest map to show the topography of the project area, and an accurate course of the streams and tributaries (Figure 10). It also shows multiple structures near the intersection of Columbia Rd. and Riverview Rd. These are all located outside of the project area. Another structure is indicated further west on Columbia Rd. This is most definitely the schoolhouse indicated on the 1891 atlas. However, this map does not have the structure marked as a schoolhouse using the conventional school symbol used on USGS maps. This would indicate that the structure is no longer being used as a school, but a residence by this time.

The 1910 (Figure 9) Summit County Atlas shows the parcel boundaries remain mostly unchanged from 1891, but some ownerships have transferred. Most notably, the properties belonging to S.C. McNeil, C. Fish, and J.A. Treat have been purchased by the Cleveland Akron Bag Co. (discussed above). The property use by Cleveland Akron Bag is unknown, but it is possible the reason for purchase was to acquire plant material for paper production. Three small residential parcels have been divided from the C. Fish parcel. These fall outside of the project area.

The Fuller parcel is shown to have been divided between to two property owners, M. Merton and "Salmon." M. Merton's parcel is within the project area, but the Salmon parcel is not.

The Stair parcel was transferred to Carrie P. Dick. Carrie Dick was the wife of Senator Charles Dick. The Dick family lived in Akron, and invested heavily in Summit County real estate, both in Charles' and Carrie's names. This edition of the atlas did not include schools or structures, but no separate parcel for the 1884 schoolhouse structure is indicated.

The 1953 Northfield USDS Topographic Quadrangle (Figure 11) shows the structure of the former schoolhouse to still be present and indicated as a residence. It does not show any other structures within the project area. It also has the entirety of SRZ North marked as woodland. The 1963 through 1967 topographic maps do not show any changes to structures or land use of SRZ North (Figure 12). However, the 1979 Cleveland USDS Topographic Quadrangle (Figure 13) shows the area of the Boston Mills Ski Resort excavation made significant impacts into the hillside directly abutting the project area. The 1994 Cleveland USDS Topographic Quadrangle (Figure 14) does not indicate any changes to the land use or structures since 1979. The former schoolhouse is still shown as a residence.

The historic aerial photographs show a landscape consistent with that indicated on the topographic mapping. The 1938 aerial (Figure 15) reveals a cleared area near the location of the schoolhouse structure and an additional cleared area further to the west on Columbia Rd. No structures are visible in this clearing. The westernmost portion of SRZ North shows two cleared areas on the southern ridges overlooking Columbia Run, these field are separated by a tree line along the parcel boundaries. It should be noted that this aerial imagery shows tree plantings had been undertaken in the parcel now owned by CVNP which bisects SRZ North.

The 1951 (Figure 16) and 1959 (Figure 17) aerials show that most of the cleared areas have begun the natural reforestation process, except for the two directly along Columbia Rd. The utility right of way, which currently runs along the southeast border of SRZ North, appears in the 1959 aerial. As discussed above, SMP acquired COLRN in 1970 and 1971. The schoolhouse structure or its remains still appear visible in the 1970 (Figure 18) and 1975 (Figure 19) aerials, but it is gone by 1980 (Figure 20). According to Finney, the structure was destroyed by arson sometime in the 1970s (2002). Aerial photographs after this point show a continuation of natural reforestation and all structures in the surrounding NPS properties are shown as being razed by 1990 (Figure 21and Figure 22).

The Buckeye Trail was rerouted off Riverview Rd. through COLRN in 1985-1986 (Peg Bobel, personal communication 2023). The trail enters SRZ North from the north 1.29 km (0.80 mi) west of the Columbia Rd. and Riverview Rd. intersection. The trail parallels Columbia Rd. through SRZ North, passing just south of the schoolhouse foundation, and enters the CVNP parcel 0.61 km (0.38 mi) from the road crossing. The trail remains on CVNP property for 1.4 km (0.87 mi) until it briefly passes through the southern region of SRZ North for 72 m (236 ft). It returns to and remains on CVNP property from this point.

Columbia Run Conservation Area SRZ South

This portion of COLRN is a small triangular shaped parcel totaling 0.01 km sq (2.79 acres) that is non-contiguous with the rest of COLRN. Its northern and western borders are with CVNP land, and its southern border is with the right of way for Interstate 80. The terrain is very steep in this parcel and bisected from the northwest to the eastern corner by an intermittent stream. It is therefore not conducive for human habitation.

Due to damage of the 1856 atlas, the ownership information of this parcel cannot be confirmed, but it is possible it was once part of a much larger parcel belonging to A. Latham (Figure 6). No structures are indicated on the Latham property; however, the damage may have obscured this information.

The 1874 (Figure 7) and 1891 (Figure 8) atlases shows this triangular parcel was once included in a much larger parcel that spanned Brewery Road belonging to S.M. Campbell. No structures are indicated in SRZ South on either atlases. A residence is shown being much farther to the south on the Campbell parcel on what is now Stine Road. An S.M. Campbell is mentioned in the SCB as being a farmer in Boston Township (SCB 1882:5).

The 1903 Cleveland USDS Topographic Quadrangle is the earliest map to show the topography of the project area, and an accurate course of the streams and tributaries (Figure 10). It does not show any structures in SRZ South and neither do any future USDS Topographic Quadrangles. However, the 1953 Northfield Quadrangle indicates 8 oil wells on this parcel, north of the SRZ South (Figure 11).

The 1910 (Figure 9) Summit County Atlas shows the Campbell parcel has been subdivided and that ownership has transferred. The portion that encompasses SRZ South was owned by K. & A. Dominiska. No structures are indicated on the 1910 atlas in rural areas and the land use by the Dominiskas is unknown.

The historic aerial photographs show this small parcel as being forested from the earliest available image in 1938 aerial (Figure 15) to present day. Although it may have been cleared for timber at some point, there is no indication that this small triangular parcel saw any significant land use during the historical period.

The most notable activity nearby is the construction of the Ohio Turnpike, which was completed in 1955 (Ohio Turnpike N.D.) and the construction of Interstate 271, which was completed in the 1960s (Ewinger 2013). The historic aerial imagery does not indicate any disturbance to SRZ South during either construction periods. An unpaved access road can be seen passing along SRZ South's western border in the 1959 aerial image (Figure 17). This access road ran south from Boston Mills Road, then turned to a parallel course along the north side of the Ohio Turnpike and terminating at an unknown location.

Previous Investigations

Previously Conducted Surveys, Previously Identified Sites

According to the Ohio History Connection's online GIS system, there are a number of previously surveyed areas and previously identified sites and features within 0.5 km (0.31 mi) of COLRN (Table 1). Sites within a 0.5 km (0.31 mi) radius are detailed here, and these include site on (or eligible for) the NRHP, the Ohio Archaeological Inventory (OAI), and the Ohio Historic Inventory (OHI) (Figure 29).

Previously Surveyed Areas

There are a total of nine previously conducted Phase I archaeological surveys within 0.5 km (0.31 mi) of COLRN:

Title	Author	Year

The Archaeological Resources of the Ohio Turnpike - Phase II Investigations at Existing and Proposed Interchanges	David Bush, Linda J. Grand, and Lucinda A. Bush	1981
Archaeological Survey and Test Excavations, AT&T Cable Right-of-Way, Cuyahoga Valley National Recreation Area, Brecksville, Cuyahoga County, and Boston Township, Summit County, Ohio	Katheen Sauser, Donald J. Metzger, and John P. Marwitt	1985
Archaeological Testing at the Coonrad Farm, Brecksville, Cuyahoga County, Ohio	Alfred M. Lee and David S. Brose	1987
Report of an Archaeological Survey Along the Ohio and Erie Canal Towpath, Cuyahoga Valley National Recreation Area, Summit County, Ohio	Vergil E. Noble	1988
Further Archaeological Investigations Along the Ohio and Erie Canal Towpath, Cuyahoga Valley National Recreation Area, Summit County, Ohio	Vergil E. Noble	1989
A Preliminary Report on the 1990 Archaeological Survey Along Sections of the Ohio and Erie Canal Towpath, Cuyahoga Valley National Recreational Area, Cuyahoga and Summit Counties, Oh	Vergil E. Noble	1990
Phase I Literature Review and Cultural Resource Survey for the Proposed Riverview Road Realignment and Improvement in the Village of Boston, Boston Township, Summit County, Ohio	Linda G Whitman, Lori O'Donnell, and Amanda Epperson	1996
Phase I Archaeological Survey of a Proposed Slope Failure (SUM-271-6.9 PID 82433) in Boston Township, Summit County, Ohio.	Andrew Sewell, Patrick M. Bennett and Michael J. Krakovsky	2007
Archaeological Investigations at Three Sites (33-CU-38, 33-Su-40, and 33-Su-431) in Boston Township, Cuyahoga Valley National Park, Summit County, Ohio: A Summary of the 2012 & 2013 Cleveland State University Archaeological Field Schools	Philip J. Wanyerka	2014

Additionally, two Phase II surveys were conducted within a 0.5 km (0.31 mi) radius of the project area:

Title	Author	Phase	Year
The Archaeological Resources of the Ohio Turnpike - Phase II Investigations at Existing and Proposed Interchanges	David R. Bush, Linda J. Grand, and Lucinda A. Bush	II	1981
Archaeological Investigations in the Cuyahoga Valley National Park, Ohio: A Summary of the 2009 Cleveland State University Archaeological Field School at the Clark Site (33-Su-106) Boston Township, Summit County, Ohio	Philip J. Wanyerka	II	2010

Two historic surveys were conducted within a 0.5 km (0.31 mi) radius of the project area:

Title	Author	Year
Potential Historic Districts in Suburban Cuyahoga County	Cuyahoga County Regional Planning Commission	1984
Historic and Archaeological Resources of the Urban County Block Grant Communities in Cuyahoga County	Cuyahoga County Department of Community Development	1978

Previously Identified Sites

There are 14 previously identified archaeological sites within a 0.5 km (0.31 mi) radius of COLRN:

OAI#	Site Name	Affiliation	Time Period	Notes
33-Su-35	Boston Mills Village	Prehistoric	MA, EW, LP	May be NRHP eligible, large multicomponent village site
33-Su-38	Oil Pumping site	Prehistoric & Historic	MW, LP; unassigned historic	Two precontact occupation sites; 477 precontact artifacts, 52 historic
33-Su-61	Boston Cemetery Village	Prehistoric	*No info available*	*No info available*
33-Su-87	Columbia Rd Village Site	Prehistoric	EW, MW	Woodland occupation site, collector and survey information, possibly NRHP eligible
33-Su-102	Riverview Site	Prehistoric	MA	22 chert debitage, 1 archaic expanded stem point, 1 pitted stone, FCR; pos. affected by erosion
33-Su-104	Columbia Rd Historic Site	Historic	Late 19th c	Historic house foundation and related historic artifacts
33-Su-106	Clark Site	Prehistoric & Historic	EW, MW, LW	Woodland occupation site, diagnostic projectile points identified, grit tempered pottery; may be NRHP eligible.
33-Su-123	I-271 Site	Historic	Post-1860	11 crockery and vessel sherds
33-Su-420	Meggysey House Site	Prehistoric & Historic	UP; 20th c.	2 debitage; historic residential debris + modern materials
33-Su-431	Riverbank Site 1997-1	Prehistoric & Historic	LP	Subsurface roasting oven and artifacts associated w/ Indigenous use in LP period
33-Su-493	Kogut House	Historic	19th c.	Sandstone block foundation & beams
33-Su-707	None	Prehistoric	UP	Small lithic scatter consisting of 5 chert debitage
33-Su-708	Wieseman House	Prehistoric & Historic	UP; 19th c. - 20th c.	1 chert debitage; historic artifacts assoc. w/ historic era residence
33-Cu-333	Jonas Coonrad House	Prehistoric & Historic	UW; mid-19th – mid 20th c.	Lithic scatter + sherd; house, outbldg foundation, factory floor; on NRHP (#79000287)

The previously conducted surveys and previously identified sites create an archaeological overview of the area surrounding the project area. Three previously inventoried archaeological sites are within the boundaries of COLRN: 33-Su-104, 33-Su-102, and 33-Su-87

Table 1: Archaeological sites within a one km radius of the subject site. Precontact temporal periods: UH = unassigned precontact, UA =unassigned Archaic, EA = Early Archaic, MA = Middle Archaic, LA = Late Archaic, UW = unassigned Woodland, EW = Early Woodland, MW = Middle Woodland, LW = Late Woodland, LP = Late Prehistoric.

(Figure 29). Sites 33-Su-87 and 33-Su-102 are precontact sites on glacial terraces formed in glaciolacustrine deposits.

Site 33-Su-102 is a small lithic scatter characterized by 22 pieces of "flint debris," one archaic expanded stem projectile point, one pitted stone, and fire-cracked rock (FCR). Both

pedestrian survey and subsurface testing were conducted at this site in 1980 by staff from the Cleveland Museum of Natural History (CMNH). All the artifacts were found on the surface, directly beneath the layer of heavy leaf litter covering the site during the pedestrian survey. The subsurface testing did not reveal any archaeological features; erosion is noted on the OAI form as a possible explanation for the artifact depth. This site is interpreted as a temporary occupation site dating to the Middle Archaic period.

Site 33-Su-87 is a small, but intensely used occupation site. The site was surface collected, and shovel tested by CMNH staff in 1979. The artifacts recovered include chert debitage, FCR, and ceramic sherds. Additionally, a local collector also recovered 49 pieces of lithic debitage, three projectile point preforms, one triangular projectile point, one Lamoka point, a projectile point fragment, and 43 ceramic body sherds. In 1982, Brose and Belovich from CMNH returned for a more intense Phase II excavation. This investigation recovered grit-tempered cordmarked pottery, triangular points, a biface, cores, debitage, worked flakes, a slate gorget, a sandstone hammerstone, fire cracked rock, and burned animal bones. They also excavated four intact hearths and pit features. The uncorrected radiocarbon dates taken during the 1982 excavation were A.D. 790±50/60 (DIC-2606) and A.D. 860±85 (DIC-2605) (Belovich and Brose 1982). The results of the investigations at this site show it was seasonally occupied, mostly during the Early Woodland period. It also contains components from the Middle Archaic, Middle Woodland, and Late Prehistoric periods (Finney 2002). The OAI form for this site indicates that further testing of the site and evaluation of its potential as an NRHP eligible site was recommended. The 1982 artifact collection is stored at MWAC. Finney suggests that this site retained excellent integrity and research potential.

Site 33-Su-104, or the Columbia Run Historic Site, is a 19th century schoolhouse and residence site. The first investigation conducted by Alan Lee in 1980 for CMNH concluded it was a late 19th century residence, possible a "squatters house" (OAI 1980). Historic ceramics, glass, stoneware, and enameled tin vessels were recovered. Additionally, 4 square nails, two round nails, one red brick, and one roofing slate were recovered. The artifacts at this site were found in and around a sandstone block foundation. An additional investigation by Brose in 1981 concluded it was late 19th-century residence, but Whitman's investigation in 1996 assigned an earlier date of 1865 (Finney 2002). However, upon studying the historic mapping and newspapers, the 2021 investigation of SMP's Cultural Resources staff concluded that this is the 1884 schoolhouse described in the above historic context for SRZ North. The results of the previous investigations support the hypothesis that the structure became a residence after its use as school was discontinued.

Looking more broadly at the physiographic setting surrounding the project area, east of the Cuyahoga River there are several sites in floodplain, alluvial plain, or low terrace (i.e. T1) settings along the waterways that intersect the topography. Sites 33-Su-35, 38, 61, 431, and 707 are examples of such sites. West of Riverview Road, precontact sites 33-Su-87, 102 are in bluff or ridgetop settings. A solid connection between the sites in these varying settings has yet to be made. It is possible that there may be a relationship between these sites in such close proximity but in such different settings and elevations. Whether that connection is temporal, seasonal, or cultural (or whether it is nonexistent!) remains to be seen. Each new data point offers new opportunities for interpretation of the corpus of knowledge in this area.

There are nine (9) historic structures or features listed on the Ohio Historic Inventory within a 0.5 km (0.31 mi) radius of the project area. Two of these historic features are located within the Boston Mills Historic District, the Boston Union Cemetery (SUM0053704) and the Hall Bros. Building (SUM0054204). Two, the National Park are near the Jonas Coonrad House, which is on the NRHP (NR#79000287; see below).

OHI Number	Present Name	Other Name	Address	Place Name	Architectural Style	Historic Use	Date
SUM005374	Boston Union Cemetery	Boston Moral Cemetery	End of Main St	Boston Twp	Vernacular	Cemetery	1810
SUM0246804	Vacant	Fish C Property/IVV	7246? Riverview Rd	Boston Twp	Unknown	Single Dwelling/Carriage House	1920
CUY0212020	National Park Svc Milkhse	Jonas Coonrad Milkhse	10340 Riverview Rd	Brecksville	Vernacular	Agricultural Outbuildings	1910
SUM0198604	ONG Armory Motor Vehicle	Storage Building	1864 Boston Mills Rd	Brecksville	Vernacular	Defense/Fortified/Military	1950
CUY0211920	National Park Svc Barn	Jonas Coonrad Barn	10340 Riverview Rd	Brecksville	Vernacular	Barn	1913
CUY0047420	Henry Merkle Jr House	Jonas Coonrad House	10340 Riverview Rd	Brecksville	Vernacular	Single Dwelling	1875
SUM0198504	ONG Armory Motor Vehicle	Storage Building	1864 Boston Mills Rd	Brecksville	Vernacular	Defense/Fortified/Military	1948
SUM0202804	Black House	N/A	2121 Boston Mills Rd	Boston Twp	Colonial Revival	Single Dwelling	1948
SUM0054204	Hall Bros Bldg	S&H Viesneans Bldg	5910 Main St	Boston Twp	Colonial Revival	Unknown	1900

Table 2: Historic structures or features listed on the OHI withing a 0.5km radius of the project area.

There are three NRHP districts within a 0.5 km (0.31 mi) radius of the project area, the Ohio and Erie Canal District, the Valley Railway District, and the Boston Mills Historic District. There is one NRHP site, the Jonas Coonrad House (NR#79000287). The Ohio and Erie Canal District is associated with the Ohio and Erie Canal which was constructed in the 1820s and 1830s through this area. There are numerous structural features still extant along the Canal which are significant historic properties. The Valley Railway District encompasses the Valley Railway, which was an industrial freight carrier and passenger rail originally constructed in 1880. The Valley Railway currently operates as a recreational passenger line via the Cuyahoga Valley Scenic Railroad. The Boston Mills Historic District is a small rural village located within the

Cuyahoga Valley National Park. The district consists of 30 contributing resources which are related to residential, agricultural, commercial, and transportation development from the mid-1820s through the mid-1920s. The district is associated with the Ohio and Erie Canal District and with the Valley Railway Historic District, as both features extend through the Boston Mills Historic District. The Jonas Coonrad House was built in 1875 and was placed on the NRHP due to its historic associations with Brecksville Township and the development of agriculture in the Cuyahoga River Valley. The property also encompasses a precontact and historic archaeological site (33-Cu-333) and a milkhouse (CUY0212020) and barn (CUY0211920).

There is one cemetery on the Ohio Genealogical Society's inventory of historic cemeteries in Ohio, Boston Union or Boston Moral Cemetery, whose period of use dates from 1810 to the present day. The cemetery is a contributing feature of the Boston Mills Historic District (noted above).

Archaeological Research Questions

Like most Phase I cultural resource surveys, the foremost research question is one of identification:

- Are there historic or archaeological materials or features in the project area? If there are, what temporal or cultural affiliations do they represent, and what site type do they represent?

The environmental context and the presence of both historic and precontact sites in similar settings in the surrounding area raised another research question:

- If there is a precontact site in the project area, how does it relate to sites in the surrounding area?

The answer to this question would require an assessment of the site conditions as well as analysis of any archaeological materials recovered. Either a precontact or historic site could be placed into a wider context of human settlement in this area of Summit County. The presence of nearby precontact sites on similar terrace landforms as those found throughout Columbia Run made it seem likely that this area might yield precontact materials or features. Likewise, the early historic settlement of the Boston Mills area did not preclude the possibility of the discovery of an historic site or feature. It would be expected that an historic site away from the population center of Boston Mills would be residential in nature, possibly a farmstead.

The final question is one related to future cultural resource investigations in the area:

- Is further archaeological investigation warranted?

Further archaeological work would be conducted if it would be expected to yield new information as to site type or function. If assessment for NRHP eligibility is necessary, a Phase II or III archaeological survey might be required.

Methods

A survey of cultural resources within the Columbia Run conservation area was conducted by SMP staff from October 2020 through November of 2021. Two survey methods were employed in the examination of the project area: visual inspection followed by the excavation of shovel test units.

Archaeological Survey Field Methods

Visual inspection consisted of walking the project area, which was restricted to the COLRN within the SRZ, to identify any observable archaeological resources. Features such as historic building foundations or debris, surviving infrastructure (culverts, drives), precontact earthworks, or the presence of precontact or historic artifacts were noted. Topography, groundcover/vegetation, proximity to water sources or wetlands, and the presence of obvious modern disturbances were also documented.

Structures and features of note were recorded in the field using the Esri Collector mobile app, which plotted the information on SMP's Esri ArcGIS map. A layer in SMP's GIS mapping titled CulturalGRID overlays a grid of 20x20 m squares over all SMP properties. This layer is designed to assist SMP's cultural resources staff in conducting visual inspections throughout the park properties by allowing them to mark areas as surveyed and the date of the survey. This map layer was utilized by the cultural resources staff to ensure systematic visual inspection throughout the conservation area.

Once it was determined that further archaeological investigation was warranted in the northern COLRN area in the SRZ at FS1, a Phase I shovel test survey was conducted across the site. Shovel test units (STUs) were excavated at 10 m intervals in transects spaced 10 m apart. Units were offset where appropriate; all unit locations were noted in field notes and mapping. STUs were 50x50 cm and were dug to the subsoil or to a maximum depth of 50 cm. Soil colors and textures were observed and recorded, and conditions within each unit was noted (e.g., the presence of gravel or roots, the appearance of disturbance or soil mixing, animal burrows, etc.). Soils excavated from the units were screened through 0.64 cm hardware cloth; any artifacts were removed, bagged with identifying information, and taken for further analysis.

Precontact Lithic Analysis

Artifact Analysis

This section briefly describes the system employed to analyze and interpret the artifacts recovered during the Phase I survey.

Precontact Material

Lithic Analysis

Chipped stone, ground or pecked stone, and other types of tools are given particular attention as these are the most common and frequently temporally diagnostic artifacts recovered. These items are defined by adapting the following compilation of descriptive classes to archaeological objects with similar morphological characteristics.

Biface: an artifact exhibiting flake scars on both faces. These are bifacially worked objects in advanced or early stages of reduction. It is also used as a generic term to identify bifacially worked items which cannot be more specifically identified (Boisvert et al. 1979);
biface preform 2: bifacially worked object with completely removed cortex, but the lateral edges have not been straightened (Johnson 1989).

Core: chert or other nucleus from which large flakes have been detached (Faulkner and McCollough 1973). Flake scars on these cores indicate multiple striking platforms and flake removal from more than one direction (McNerney 1987);

Celt: hafted stones of igneous or metamorphic material used for chopping or cutting. One end is pecked and ground to form a bit. The opposing blunt end serves as the hafting element (Boisvert et al. 1979).

Flake: unmodified piece of lithic material detached from another piece of lithic material. It has a bulb of percussion at the point where force was applied to detach it from its parent material, and frequently exhibits ripples on the ventral surface left by the shock wave of the force applied. The dorsal, or outer surface, may have cortex or scars from previously detached flakes (Chapman 1977).

Modified flake: these expedient tools are flakes that have been inadvertently modified through use or intentionally modified through marginal retouching on one or more lateral edges, or both. "Marginal retouching" is the term applied to any type of trimming (unifacial or bifacial, flat or steep, regular or alternate) that is restricted to the edges of an artifact (White et al. 1963). While microscopic analysis is the only way to determine specific uses, inadvertent modifications in the form of edge ware can be observed at the macroscopic level (Ahler and Henderson 1988; Boisvert et al.1979; Winters 1969). It variously consists of striations, polish, small series of hinge fractures, and dulling that can be observed on the edge of the flake (Boisvert et al.1979; Winters 1969).

Retouched flake: a flake which displays edge modification resulting from use or intentional retouch with flake scars that extend at least 2 mm from the edge of the tool. A utilized flake is defined as a flake with flake scars resulting from use that extend less than 2 mm from the tool edge. It is presumed that tools exhibiting retouched edges were utilized, however, no microwear analysis was performed during the study to verify this. Usually, such modification occurs on flakes and is confined to the flake edge.

Shatter: sometimes referred to as fragment or angular debris, this category encompasses lithic material that is blocky and angular in form, and which does not exhibit a definable ventral surface, but may exhibit conchoidal scars indicative of percussion manufacture. These artifacts show no evidence of modification and do not exhibit sufficient negative scarring to indicate that they were used as cores (Chapman and Schutt 1977).

Spokeshave: a flake that has a concave semicircular retouched area on one or more edges (White et al. 1963).

Knife: a thin, bifacially worked tool that is often crudely made, lacking any hafting elements, usually square to triangular in shape, and exhibiting fine retouch along one or more of its edges (Converse 1973; Winters 1969). Knives may also be morphologically identical to projectile points. They are primarily distinguished from projectile points by characteristic edge treatment and wear. The retouched edges are frequently beveled to some degree due to resharpening. Typically, knives exhibit a wavy, saw-like edge resulting from alternate flaking that has been dulled through wear and has polish and hinge fractures along it (Winters 1969).

Projectile point: a bifacially flaked artifact with usually with hafting modifications and a pointed tip opposite the hafting area (Boisvert et al. 1979). These artifacts are differentiated from drills by broader, thinner blades and from hafted scrapers by longer blades. While in many cases they are morphologically identical to, and could have served as knives, projectile points typically have straighter edges than knives and do not exhibit use wear in the form of dulling, polishing, and hinge fracturing along the blade edge (Winters 1969). Included in this category are thin, bifacially worked, triangular-shaped tools which lack any hafting modification.

Scraper: general term for a variety of shaped objects exhibiting systematic unifacial marginal retouch, generally in a steep-edged fashion. Included in the class are objects referred to as hafted scrapers, end scrapers, and side scrapers. A hafted scraper has a proximal end resembling the hafting element of a notched or stemmed projectile point, while the distal end has been transversely retouched. Such an object may have been initially manufactured or may result from opportunistic reuse of a broken knife or projectile point. An end scraper conforms to a triangulate or teardrop plan outline shape and exhibits retouch along the distal flake edge. A side scraper may or may not have a formal plan outline shape and exhibits retouch along the lateral flake edge (Boisvert et al. 1979).

The analytical procedure known as mass analysis to whole flakes was not conducted because the sample size for each chert type should number greater than 100 for the results to be statistically significant (Ahler 1989). The project area did not yield enough whole flakes for mass analysis.

The heat altered category includes lithic materials that were intentionally or unintentionally thermally altered. Precontact peoples intentionally heat altered chert to improve the knapping quality and possibly to change the color of the material (Luedtke 1992). Luedtke (1992) describes unintentional heat alteration are still cultural in context as in heated chert nodules utilized as pot boilers for cooking, fire used for quarrying, and chert debris that fell or was tossed into a fire.

Chert type identification was based on visual properties and morphological variables. The Vanport member is Pennsylvanian in age extending from Lawrence and Scioto counties along the Ohio River northward to adjacent Stark County. Flint Ridge flint, one of the two most distinguished chert deposits in Ohio comes from the central portion in Licking and Muskingum counties. Utilized throughout prehistory, Flint Ridge is a high-grade chalcedony with a high lustrous quality that comes in a variety of colors from white to pink to green (Stout and Schoenlaub 1945).

The Upper Mercer member is also Pennsylvanian-age, extending from the Ohio River in Lawrence and Scioto counties north to Columbiana, Mahoning, Stark, Wayne and Tuscarawas counties. The notable black flint variety can be found overlain with irregular lenses of gray in

Coshocton, Muskingum, Licking, Perry, and Hocking counties (Stout and Schoenlaub 1945). Nellie Chert, a variety from Coshocton County near the town of Nellie, is dull silver gray in color with a non-lustrous texture.

Plum Run Flint is found in Mahoning and Stark Counties which is associated with the Vanport formation. It has a glossy luster and is commonly grey, pink, yellow, and/or tan. It is often mottled in appearance (Larson and Larson 2022).

Glacial cherts are deposited glacial tills which were picked up and transported all the way from Labrador. Describing and identifying this source material is very difficult. Consequently, if an object does not convincingly fit the characteristics of one of the other described types, then it is classified as glacial chert.

Cedarville (or Cedarville-Guelph) chert is primarily a dull to waxy mottled or banded white to light grey/blue. Quartz inclusions can be present, and the inclusion of numerous larger fossils give the chert a brown/black speckled appearance. It can be found in northwestern Ohio, southern Michigan, and northeastern Indiana (Larson and Larson 2022).

Kanawha Black chert is a black/bluish black to grey chert with a generally dull luster. It is found primarily in the Kanawha River valley in West Virginia (Larson and Larson 2022).

Slate is the lowest grade of metamorphic rock, with a dull luster and strong cleavage. High-quality slate was used by precontact peoples to manufacture tools such as celts and adzes as well as gorgets, bannerstones and bar amulets.

Historic Artifact Analysis

The artifacts were sorted using the Ball's Historic Artifact Patterning in the Ohio Valley (1984), derived from South's functional scheme for British colonial sites:

Architecture Group

This group consists of architectural elements or remains of architectural elements. Examples of such artifacts include window glass, nails, plumbing elements, roofing material, drain tile sherds, hinges, etc. These items enter the archaeological record usually through abandonment instead of through discard. Abandonment may occur for several reasons such as fire, movement, or neglect. This group has the potential to reveal information regarding the construction materials and design of a site.

Arms Group

The arms group according to South and Ball includes gun flints, percussion caps, cartridges, bullets, firearm parts, etc. These items are generally diagnostic artifacts not only to the time period, but also give clues into the types of activities conducted at a site. These items enter the archaeological record due to discard.

Kitchen Group

The group of artifacts includes all items relating to food preparation, storage, service, and consumption. All container glass fragments and ceramic sherds which cannot be attributed to another functional group are included in the kitchen group. These items are generally discarded due to breakage or replacement. Ceramics are sorted by ware types and style. Glass fragments are sorted by form, manufacturing type, decoration, and color. This sorting can provide information on the time period of site use as well as the food consumption habits of the users.

Personal Group

This group includes artifacts that are associated with, carried by, or belong to one individual. It includes combs, pocketknives, watches, tobacco pipes, coins, jewelry, and religious paraphernalia.

Activities Group

This group contains all artifacts which cannot be sorted into the other groups. It also includes tools, toys, barn and stable hardware, transportation related artifacts (i.e., wagon, buggy, railroad, and automobile parts), fencing, electrical components, heating implements, musical instruments, military implements that are firearm related, slag, clinker, and unidentifiable artifacts.

Artifact Curation

All artifacts, notes, records, drawings, maps, photographs, and other project documents will be housed at Summit Metro Parks' Storage Facility within the Conservation Department. An Ohio Archaeological Inventory form will be completed and filed with Ohio Historic Preservation Office which will document the archaeological resources recovered during the excavation.

Survey Results

Visual Inspection

General Notes and Previously Identified Sites

The majority of extant cultural material found throughout COLRN within the SRZ was historic in nature and included segments of road/access drives, clay and metal drain piping, concrete drainage infrastructure, bricks, and metal items likely related to farming or transportation. Such historic and modern material is typical for an area once used for agricultural and/or residential purposes; in many cases these materials have been discarded or abandoned. These sites and features were mapped into SMP's GIS system for the purpose of park management (Figure 4). Additionally, visual inspection in the southern portion of the COLRN within the SRZ confirmed that steep slopes dominate almost the entire parcel. No cultural resources were identified in the SRZ South area. Seven Field Sites (FS1-FS7) were identified in the SRZ North area.

Inspection of the SRZ North around two known archaeological sites, 33-Su-104 and 33-Su-87 confirmed that archaeological material can still be found on the surface of these sites (Figure 30, Figure 31). The Ohio Archaeological Inventory (OAI) form for 33-Su-104 notes household ceramic, glass, enamel, and structural material in and around a sandstone foundation with modern cement additions were identified during a survey in 1980. A foundation of sandstone blocks and concrete slabs and blocks was identified during visual inspection in 2021, as well as a broken stoneware crock and remnants of wooden fencing.

Site 33-Su-87 is an Early to Middle Woodland site investigated through pedestrian survey in 1979. Diagnostic projectile points, ceramics, FCR, and chert flakes were found during the pedestrian survey and observed in the collection of a Mr. Joe Olgas, a (presumably local)

collector. In 1982, Brose and Belovich from CMNH returned for a more intense Phase II excavation. This investigation recovered grit-tempered cordmarked pottery, triangular points, a biface, cores, debitage, worked flakes, a slate gorget, a sandstone hammerstone, fire cracked rock, and burned animal bones. During the 2021 visual inspection, nine chert flakes and one piece of possible fire cracked rock (FCR) were identified in the location of 33-Su-87. Surface visibility was between 60%-80% across much of the site, and an area of approximately 200 m^2 was surveyed.

FS1(33-Su-717)

Southeast of 33-Su-87 and directly south of another precontact site, 33-Su-102, another precontact site, FS1, was identified through visual inspection (Figure 4). Surface visibility throughout FS1 was between 60%-80% across much of the site, and approximately 350 m^2 was surveyed. Four chert flakes, one partial projectile point, and one FCR were identified at FS1(Figure 32). FS1 is along the same topographical feature as 33-Su-102 (Figure 29), a roughly north/south ridgeline between the Cuyahoga River to the east and a series of perennial and ephemeral tributaries of Columbia Run to the west. The closest water source is one of these tributaries directly west of FS1, which is approximately 115 m away. Also, to the west of FS1 is site 33-Su-87, which is located along a hilltop/bluff overlooking Columbia Run. Due to the proximity to two known precontact sites, proximity to important waterways, and similarity in topographical context, this area, FS1 was slated for further archaeological survey.

FS2

FS2 is located approximately 300 m southwest of FS1 and on the western edge of the same ridgetop landform on which FS1 was found (Figure 4). One Flint Ridge chert flake showing signs of possible modification was identified during visual inspection.

FS3

FS3 is located approximately 70 m southeast of FS1 and on the eastern side of the same ridgetop landform on which FS1 was found (Figure 4). One Plum Run chert flake showing signs of modification and one Upper Mercer flake was identified during visual inspection. One notable aspect of FS3 is that it is separated from FS1 by a wide linear utility easement which extends along the top of the ridge from Boston Mills Road to Riverview Road.

FS4, FS5, FS6, and FS7

These four Field Sites are all remnants of historic roads or drives located in the SRZ North (Figure 4). No cultural material relating to these roads was identified; long linear paths and consistently flat surfaces belied their presence in the landscape. FS4 and FS7 both follow existing (and historic) parcel boundaries. FS4 appears to have served as access to an agricultural field. FS7 may have been used to access high ridgetop areas. FS5 served as a connector between Columbia Run and an historic farm or residence on Columbia Road. It is unknown whether this road extended beyond Columbia Run. FS6 consists of two road remnants which may have connected the road represented by FS7 to Columbia Run, and possibly to FS5 further to the east.

Archaeological Survey at FS1 (33-Su-717)

During the visual inspection, precontact artifacts were noted throughout FS1. The presence of archaeological materials, namely chert debitage and tools, indicated the presence of a site in the project area. The similarity in environmental context to two nearby sites, 33-Su-87 and 33-Su-102, was also noted.

Shovel Test Excavation Results

A total of 39 STUs were excavated across an area of approximately 1.2 acres (Figure 36). The excavated soils displayed a generally shallow (<10 cm), in some cases very shallow (<5 cm) silt loam A horizon ranging in color from 10YR 2/3, 3/4, 4/4, to 5/4 which was very dry. Roots (generally <0.5 cm to 4 cm) and small (<0.5 to 2 cm) to medium (2+ cm) gravel were found in almost every unit. The A horizon was underlain by a dry, compacted silty clay loam ranging in color from 10YR 5/4, 6/4, 7/3, and 7.5YR 5/4. Roots and gravel similar to that found in the A horizon were found in the B horizon, along with some evidence of animal burrowing activity. (Figure 34)

A total of 23 artifacts were found in 14 STUs; all artifacts were precontact in nature. None of the artifacts identified were culturally or temporally diagnostic, thus this site is categorized as an unassigned precontact site. The artifacts identified include lithics and floral remains (in the form of charcoal/burnt wood). Detailed information about the artifacts recovered can be found in Table 2 and they can be seen in Figure 33, but a general breakdown of the artifacts is as follows:

- 15 flakes (including one broken flake)
- 3 pieces of shatter
- 2 FCR
- 1 chert nodule, possibly worked on one side
- 1 broken projectile point (possibly unfinished)
- 1 charcoal/burnt wood sample

One FCR was found possibly associated with a small quantity (10 g) of charcoal flecks in the northeast corner of STU 100N/20E. A small inclusion of 7.5YR 5/6 clay appeared in this area as well at a depth of 13 cm (Figure 35). The inclusion measured less than 10 cm by 10 cm at its widest point. This unit was extended to a 1 m by 1 m excavation unit to investigate whether this was indicative of a precontact feature such as a fire pit or hearth (Figure 36). No further artifacts or charcoal were recovered, and the area of discoloration disappeared at approximately 23 cm and had an irregular shape. This feature is interpreted as a natural feature related to tree roots or animal activity.

The soil unit specified on soil mapping throughout the project area is Glenford silt loam, 2 to 6 percent slopes (GfB). Examination of the soils observed during shovel testing (Table 3), however, indicates that the soil type throughout the area is more consistent with the Geeburg soil series, particularly the clay content and color found in the B horizon. Areas of Geeburg soils can be found within GfB, especially near the Cuyahoga River Valley. Just north of the project area the soil type is Geeburg silt loam, 12 to 18 percent slopes, moderately eroded (GbD2). The representative soil description for the Geeburg series is comparative to the soils encountered during shovel testing in terms of color and texture. Based on the observed soils, it is likely a mix of Glenford and Geeburg soils within the project area, with a predominance of

Geeburg soils. More importantly, much of the surface layer appeared to have been eroded throughout the project area. The maximum depth of the A horizon was 12 cm (less than 5 in), and 19 units had an A horizon of 5cm or less.

Summary, Conclusions, and Recommendations

Survey of the cultural resources throughout SMP's property within the SRZ revealed numerous instances of extant cultural resources, both historic and precontact, across the landscape. Further documentary/map research and, if warranted, archaeological investigation may reveal connections to historic settlement or agricultural land use. In particular, logging or industrial activity related to the Cleveland-Akron Bag Company (who owned land within the SRZ) in the early 1900s would be of interest. The influence of this company on the development of the Village of Boston Mills is a key component of the National Register eligibility of the Boston Mills Historic District (NR# 92001490), which is directly south and east of the project area. Though nothing directly related to logging activity, or the Cleveland-Akron Bag Company was identified during the visual inspection, this does not preclude the possibility of archaeological sites in the SRZ associated with this company.

The visual inspection identified three new precontact sites areas, designated FS1, FS2, and FS3. A shovel test survey of FS1 identified a small lithic scatter along a ridgetop in a relatively eroded soil profile. The site is designated 33-Su-717 on the Ohio Archaeological Inventory (OAI). FS2 and FS3 were not investigated further through archaeological investigation, however archaeological investigation at a future date is recommended. These sites are all within close proximity of one another as well as two other precontact archaeological sites, 33-Su-102 and 33-Su-87. Taken together, these sites reveal a strong pattern of occupation along the ridgelines across this area, with access to both the Cuyahoga River and smaller tributaries of Columbia Run. Given the topography of the surrounding area of the Cuyahoga River Valley of ridgelines intersected with perennial and ephemeral streams which are tributaries to larger streams or the Cuyahoga River, it would be expected that a similar pattern would play out across a much larger landscape which would extend across both SMP and CVNP properties. There are undoubtedly other precontact sites located on ridgelines along the waterways in the area.

The findings of this survey, placed in a larger context of previously identified sites nearby, raises important questions about precontact land use and settlement patterns as a whole. Should the landscape in the uplands throughout the Cuyahoga River Valley be conceptualized as one large occupation area rather than a set of discrete sites? Is this a system of sites, connected culturally or temporally? How do the sites found along the ridgelines relate to the sites found throughout the river valleys and along the nearby floodplains? Because the uplands throughout the Columbia Run Conservation SRZ North the surrounding CVNP properties have been left relatively undisturbed, archaeological work can be conducted here which may shed light on these questions. It is the strong recommendation of this survey, therefore, that human access be kept to a minimum throughout the Columbia Run Conservation SRZ North the surrounding area. Minimizing erosion which may affect sites located along ridgelines, hills, or bluffs, would also be preferable. The presence of an informal visitor trail cutting directly through FS1, and the erosion observed during the shovel test survey suggest that visitor presence could be affecting soils, and therefore archaeological sites, along the uplands and ridgelines throughout the SRZ.

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The following aerial photographs:

1938, 1951, 1959, 1970, 1975, 1980, 1985, 1990, 2006, 2011, and 2021

Appendix A: Figures

General Timeline of Precontact Cultural Periods in Ohio

Paleoindian	Early	11,000 - 8,500 B.C.
	Late	8,500 - 7,000 B.C.
Archaic	Early	8,000 - 6,000 B.C.
	Middle	6,000 - 3,500 B.C.
	Late	3,500 - 1,000 B.C.
Woodland	Early	1,000 B.C. - A.D. 1
	Middle	A.D. 1 - A.D. 350/400
	Late	A.D. 400 - 1000
Late Precontact (Northeast Ohio = Whittlesey)		
	Early	A.D. 950 - 1150
	Middle	A.D. 1450 - 1550
	Late	A.D. 1550 - 1640

Figure 1: General timeline of the precontact periods in Ohio and specifically Northeast Ohio.

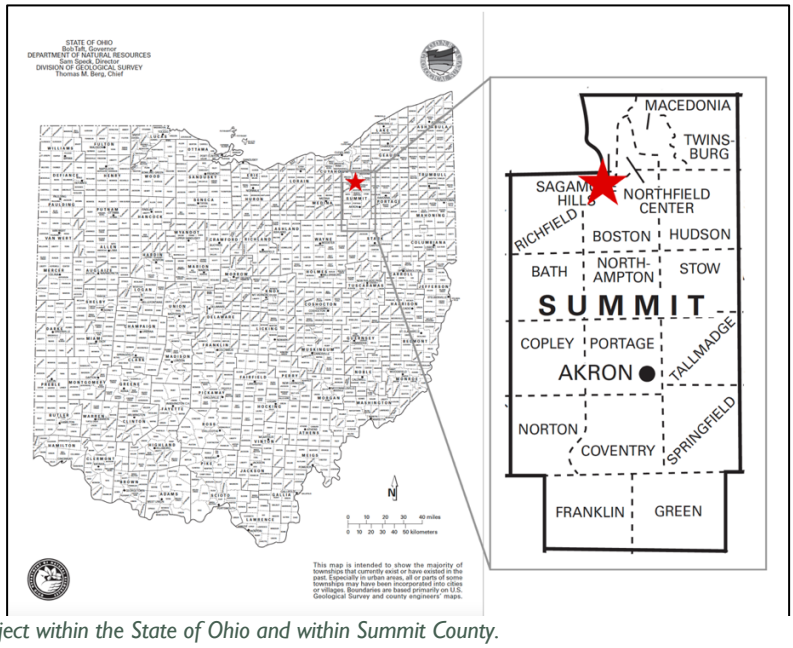


Figure 2: Location of project within the State of Ohio and within Summit County.

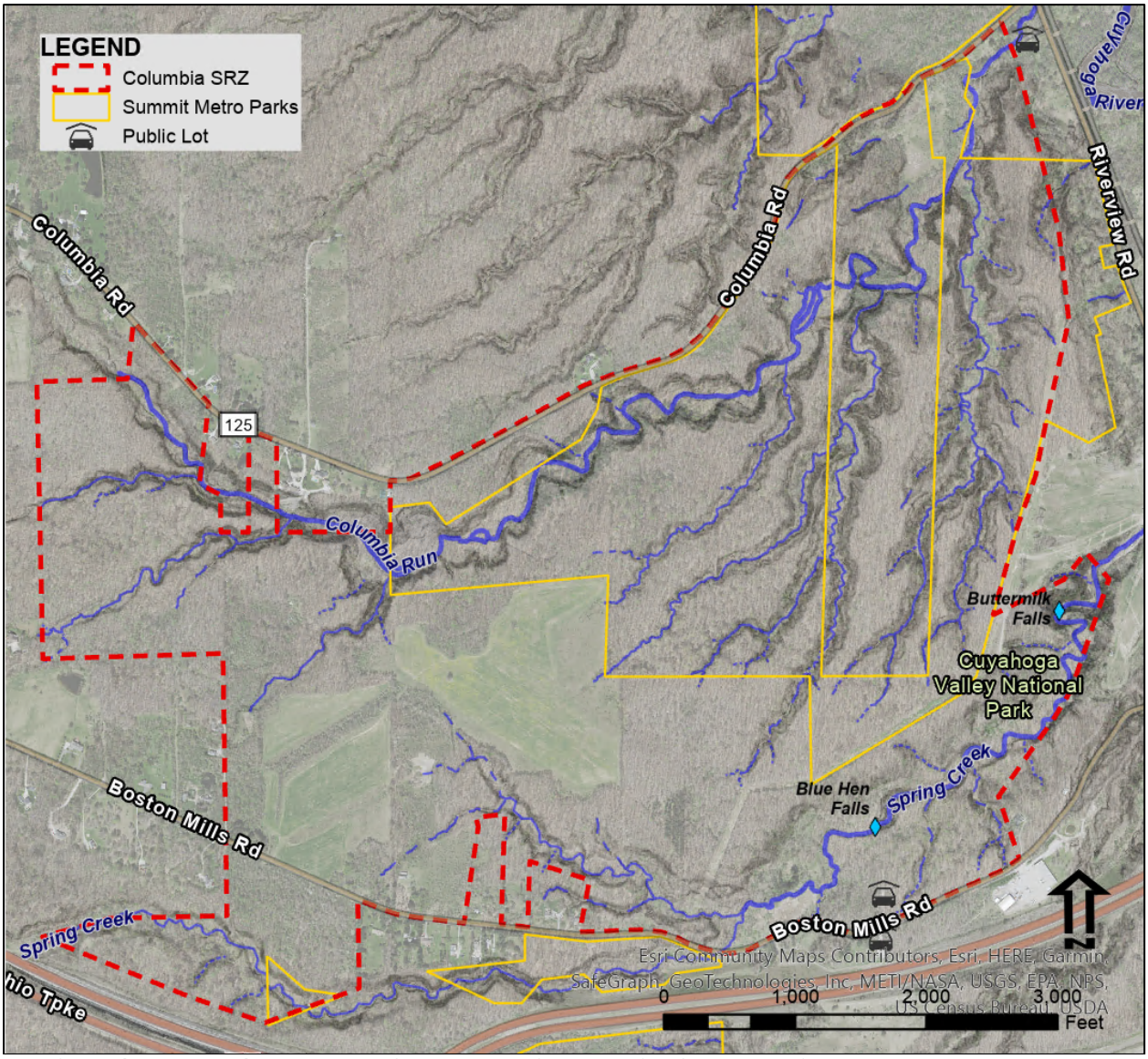


Figure 3: The Columbia Run Conservation Area (outlined in yellow) within the SRZ (outlined in red)

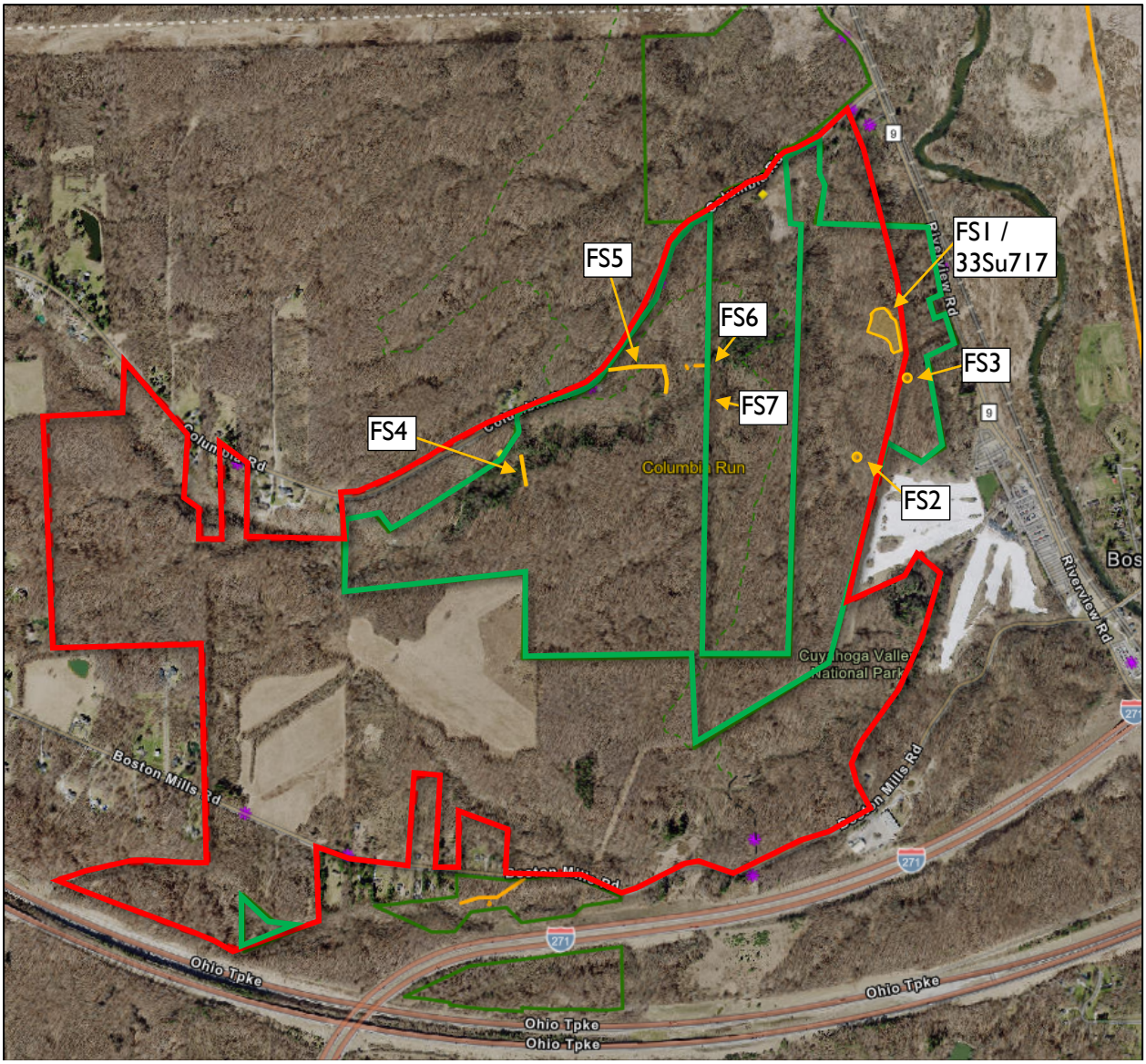


Figure 4: 2021 aerial map showing the Field Sites (FS) within SMP's property (outlined in green) within the SRZ (outlined in red); these sites were identified during the 2021 visual inspection. A Phase I shovel test survey was conducted at FS1, and the site was given the OAI number 33-Su-717. The SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

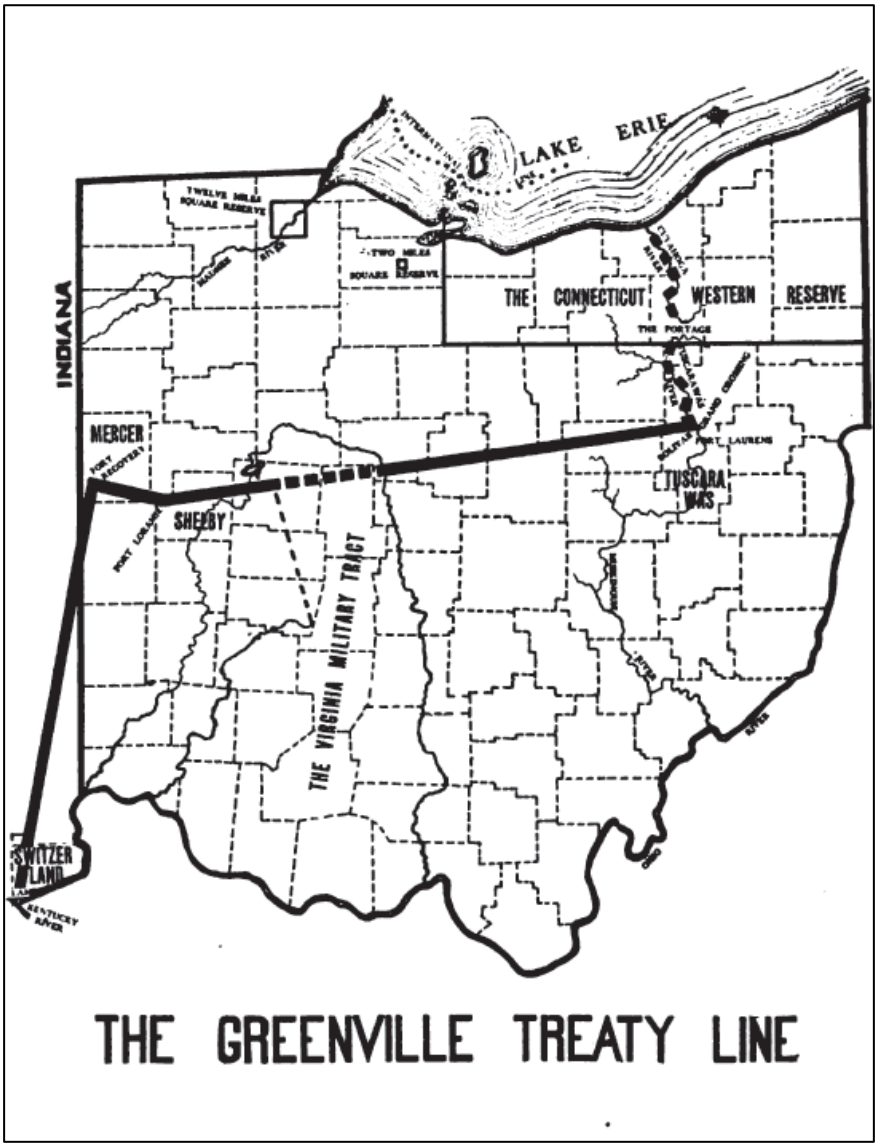


Figure 5: The 1795 Greenville Treaty Line. (Peters 1918)

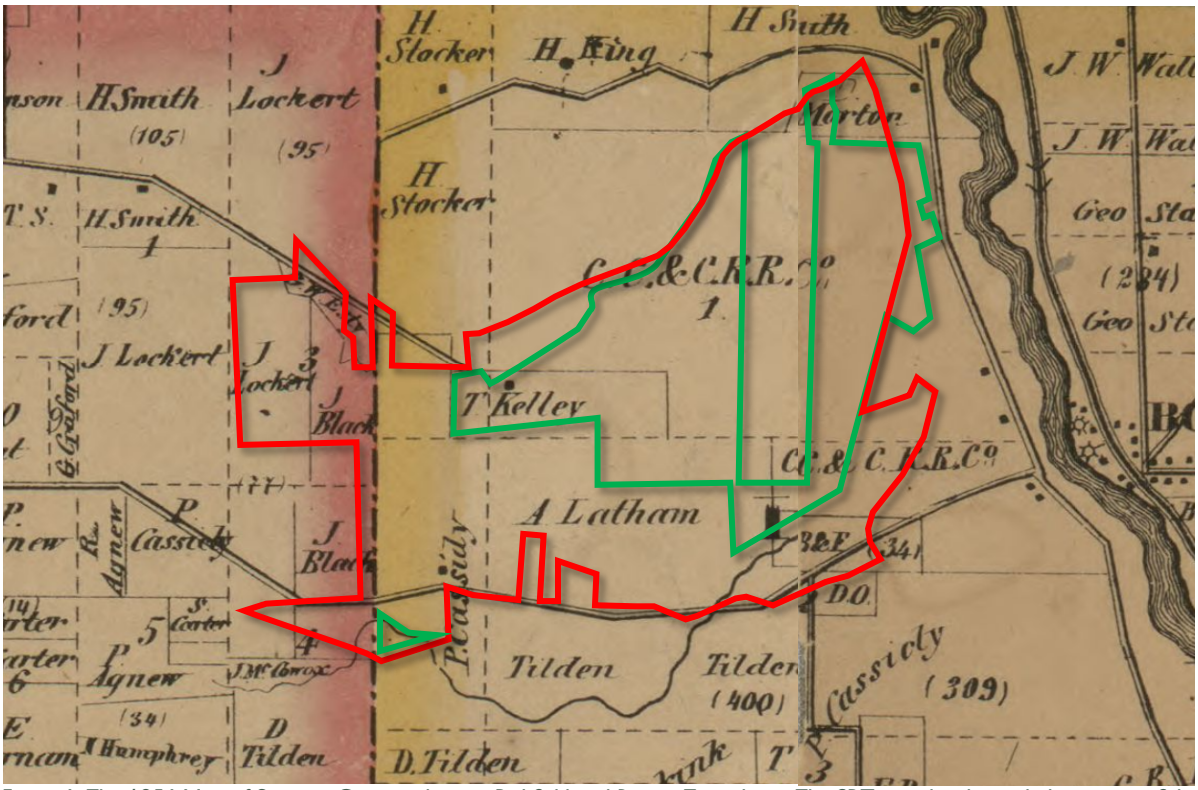


Figure 6: The 1856 Map of Summit County *showing Richfield and Boston Townships. The SRZ is outlined in red, the portion of the Columbia Run Conservation Area within the SRZ is in green. Note: the scale is slightly inaccurate, thus the borders of the SRZ and the COLRN have been modified to align with original property lines which comprise parts of their boundaries.*

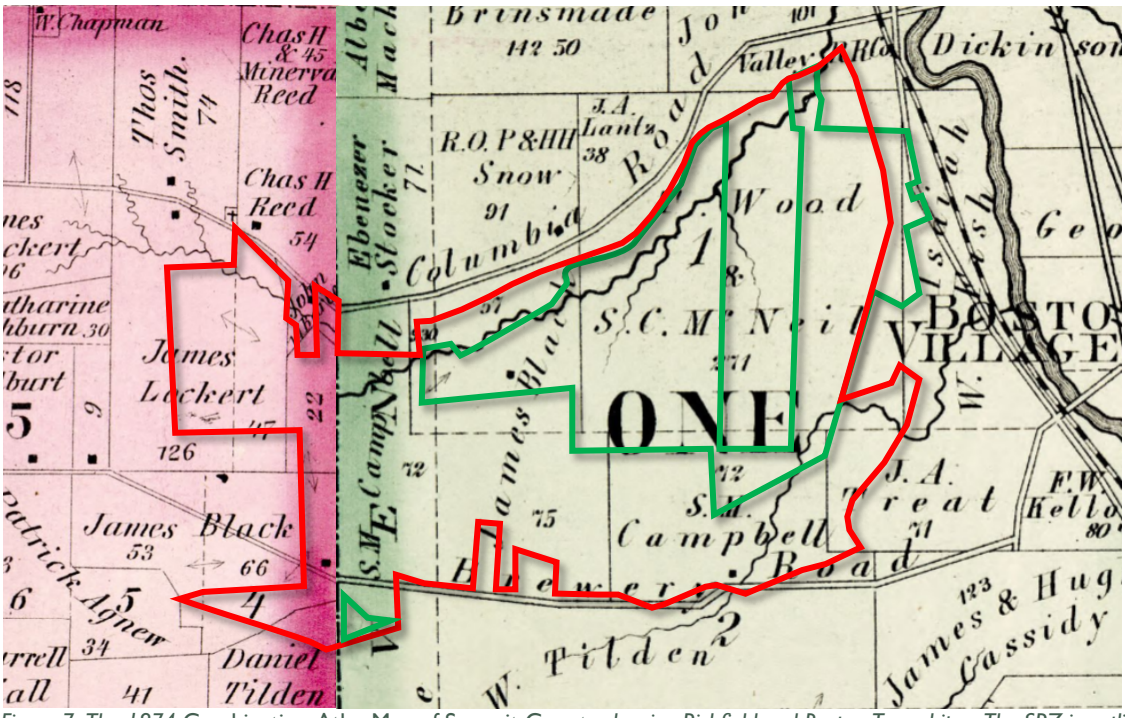


Figure 7: The 1874 Combination Atlas Map of Summit County *showing Richfield and Boston Townships. The SRZ is outlined in red, the portion of the Columbia Run Conservation Area within the SRZ is in green. Note that the scale of the map is slightly inaccurate, thus*

the borders of the SRZ and the COLRN have been modified to align with the original property lines which comprise parts of their boundaries.

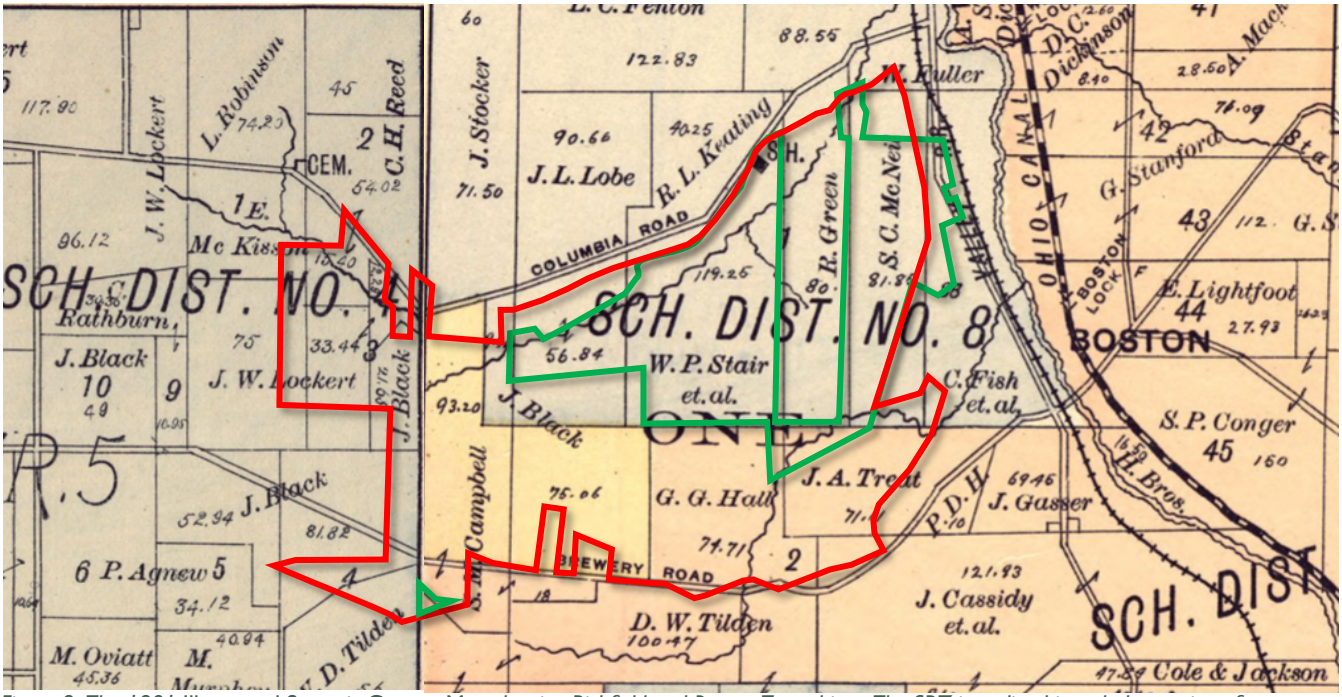


Figure 8: The 1891 Illustrated Summit County Map *showing Richfield and Boston Townships. The SRZ is outlined in red, the portion of the Columbia Run Conservation Area within the SRZ is in green. Note that the scale of the map is slightly inaccurate, thus the borders of the SRZ and the COLRN have been modified to align with the original property lines which comprise parts of their boundaries.*

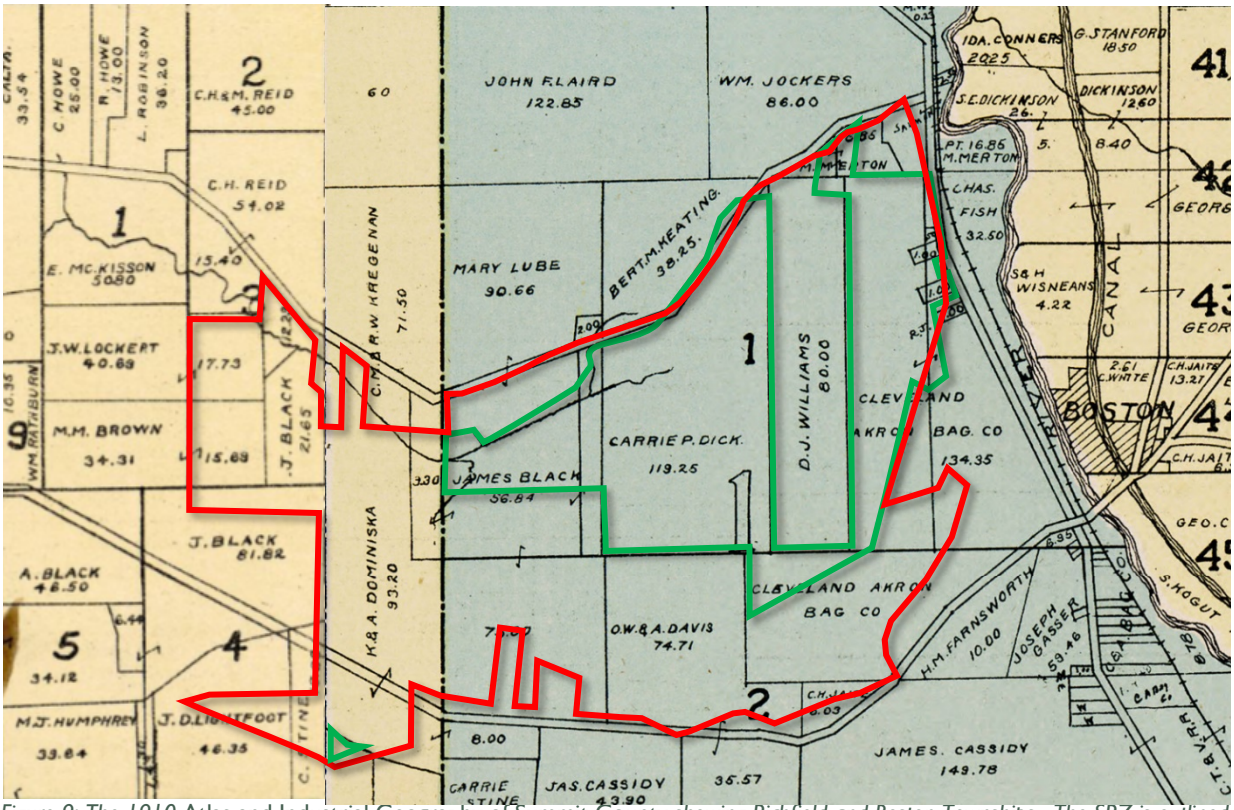


Figure 9: The 1910 Atlas and Industrial Geography of Summit County *showing Richfield and Boston Townships. The SRZ is outlined in red, the portion of the Columbia Run Conservation Area within the SRZ is in green. Note that the scale of the map is slightly inaccurate, thus the borders of the SRZ and the COLRN have been modified to align with the original property lines which comprise parts of their boundaries.*

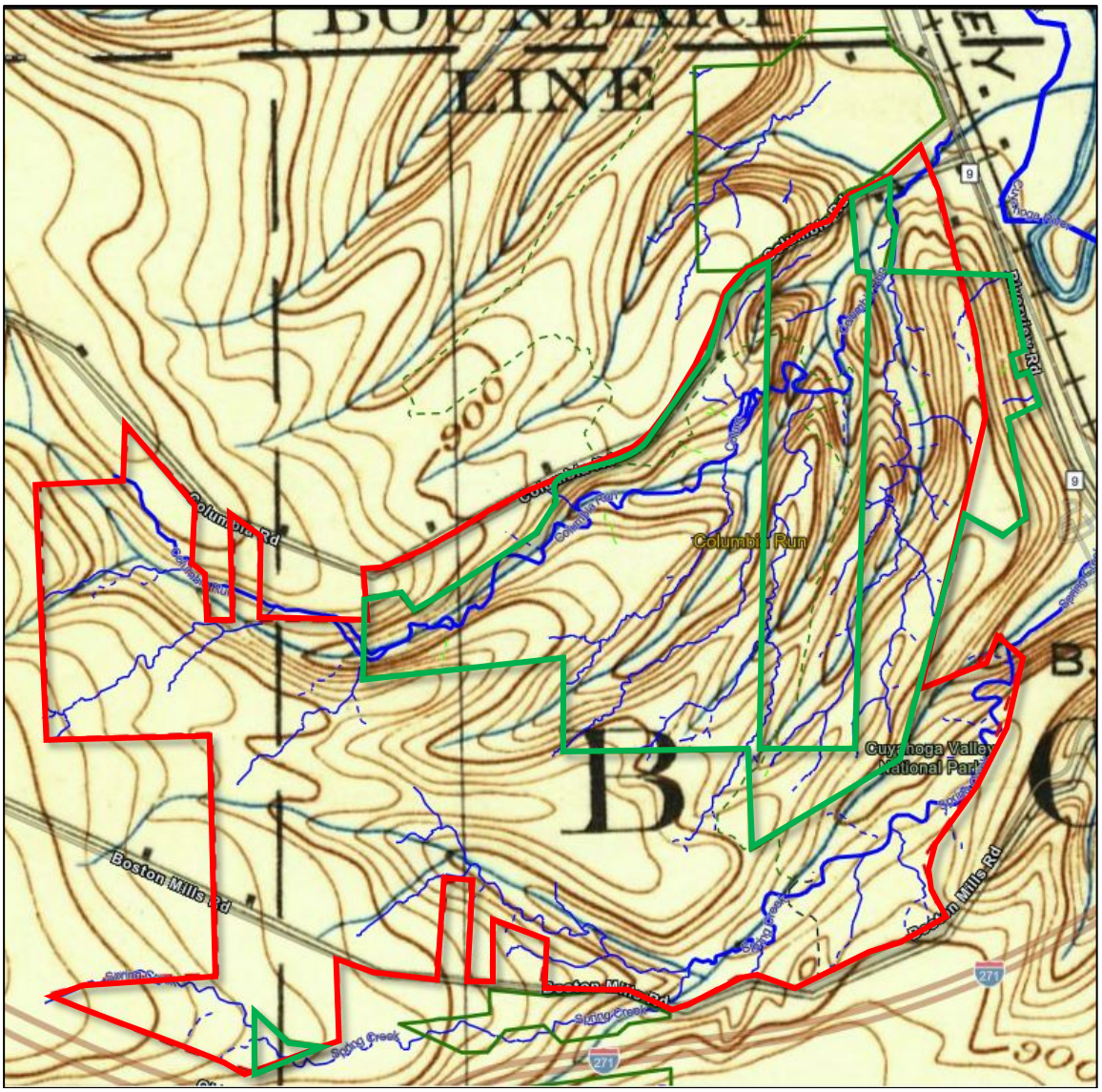


Figure 10: Portion of the 1903 Cleveland *USGS topographic map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.*

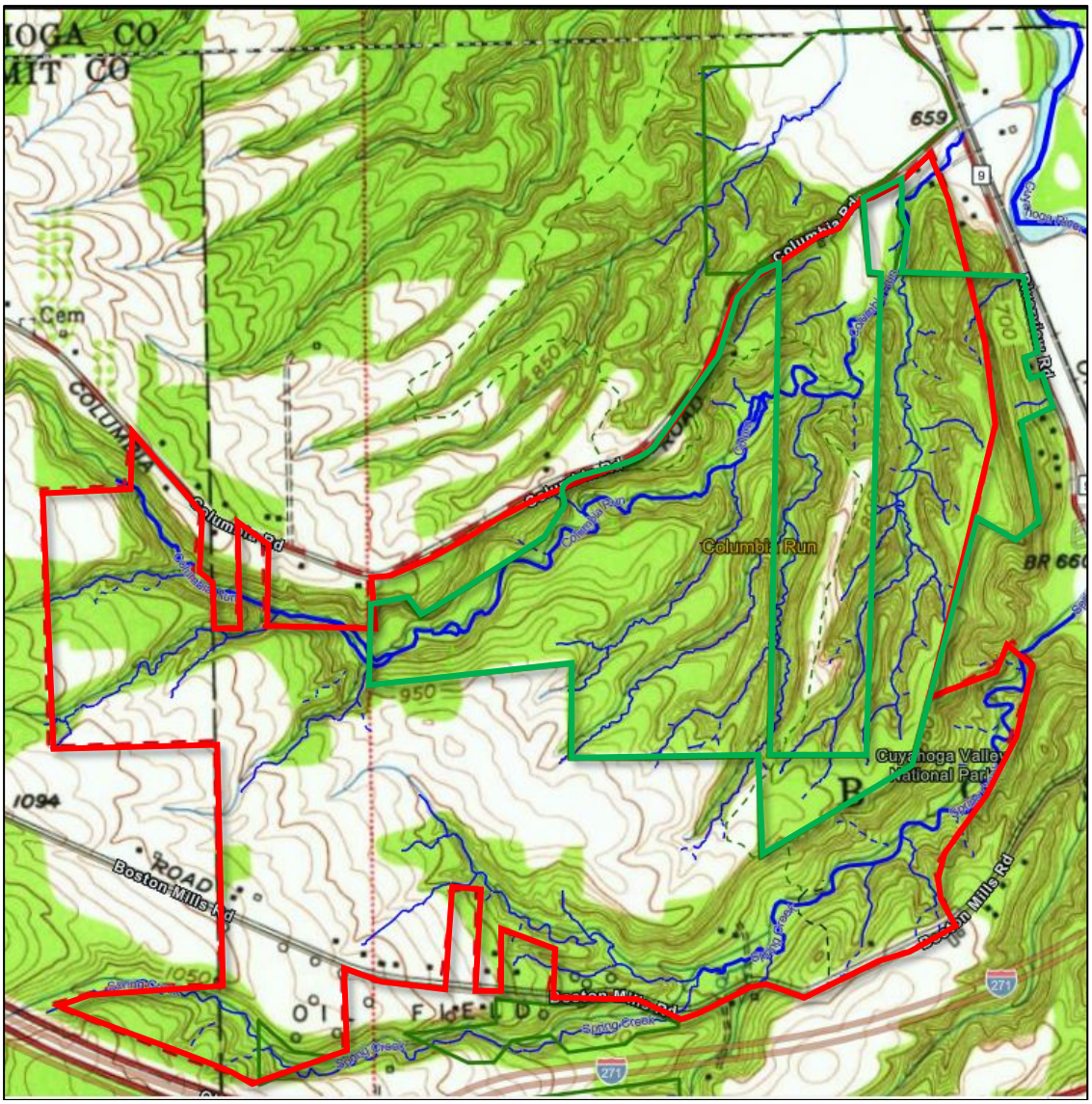


Figure 11: Portion of the 1953 Northfield *USGS topographic map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.*

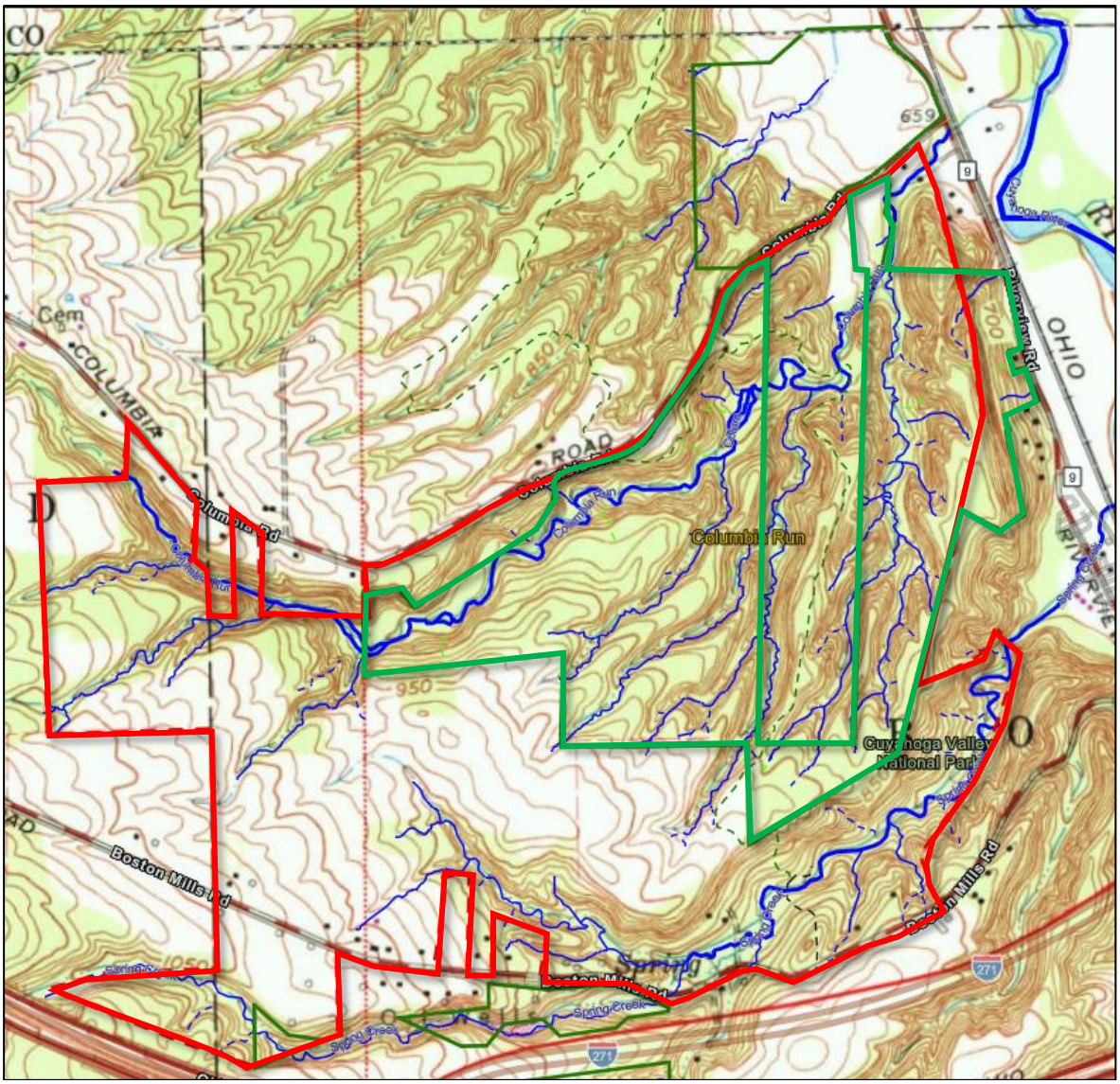


Figure 12: Portion of the 1963 Northfield *USGS topographic map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.*

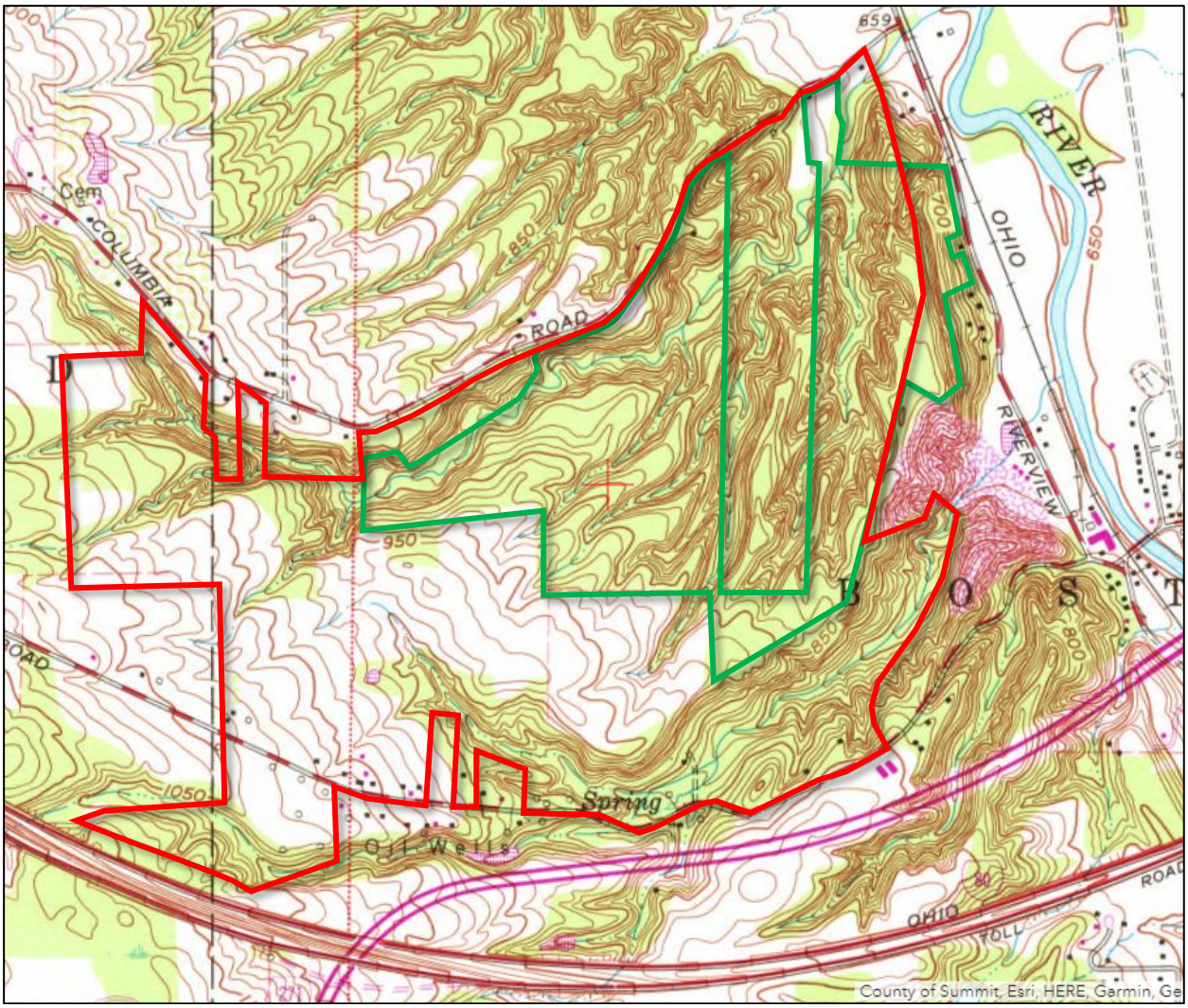


Figure 13: Portion of the 1979 Northfield *USGS topographic map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.*

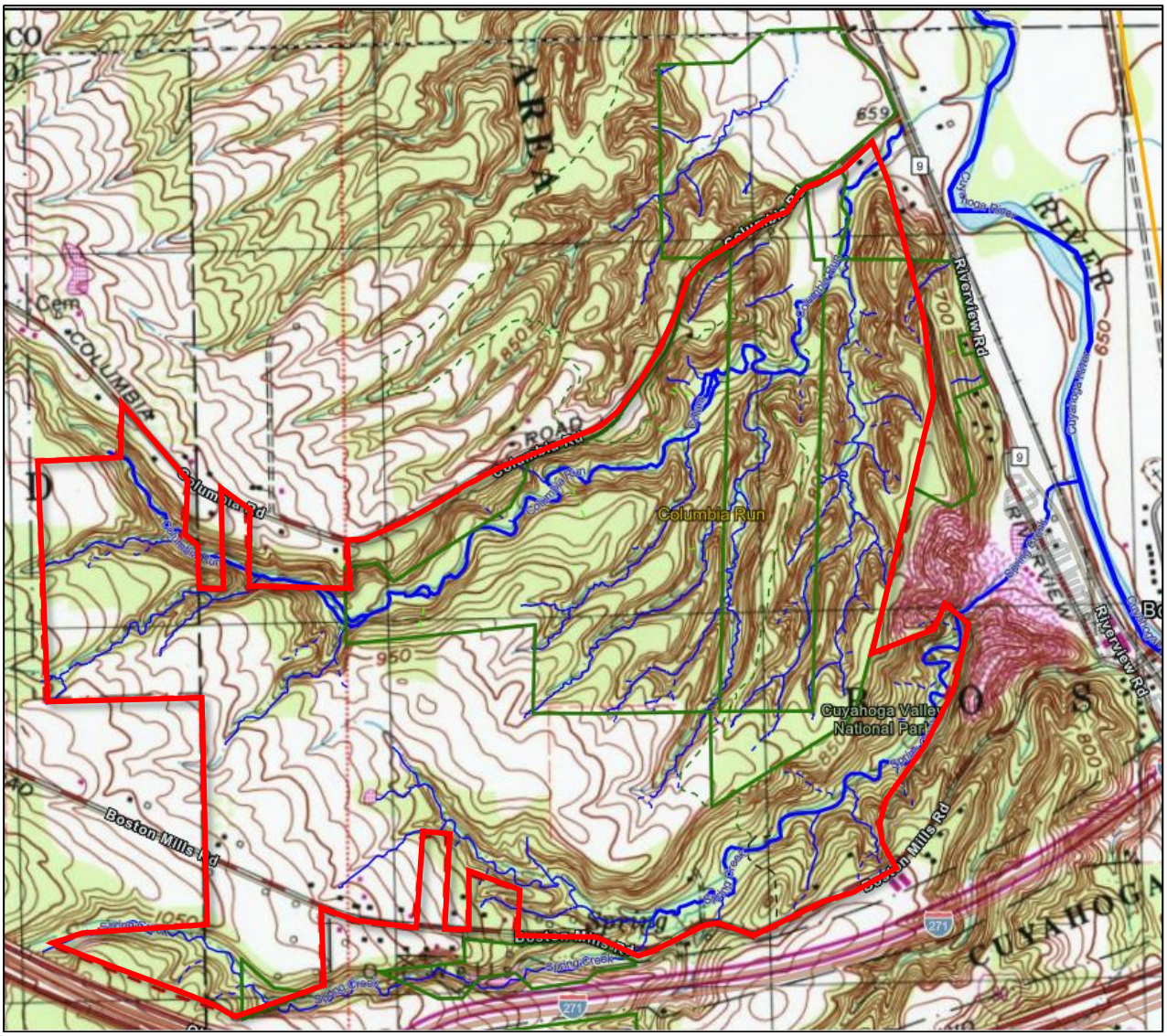


Figure 14: Portion of the 1994 Northfield *USGS topographic map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.*

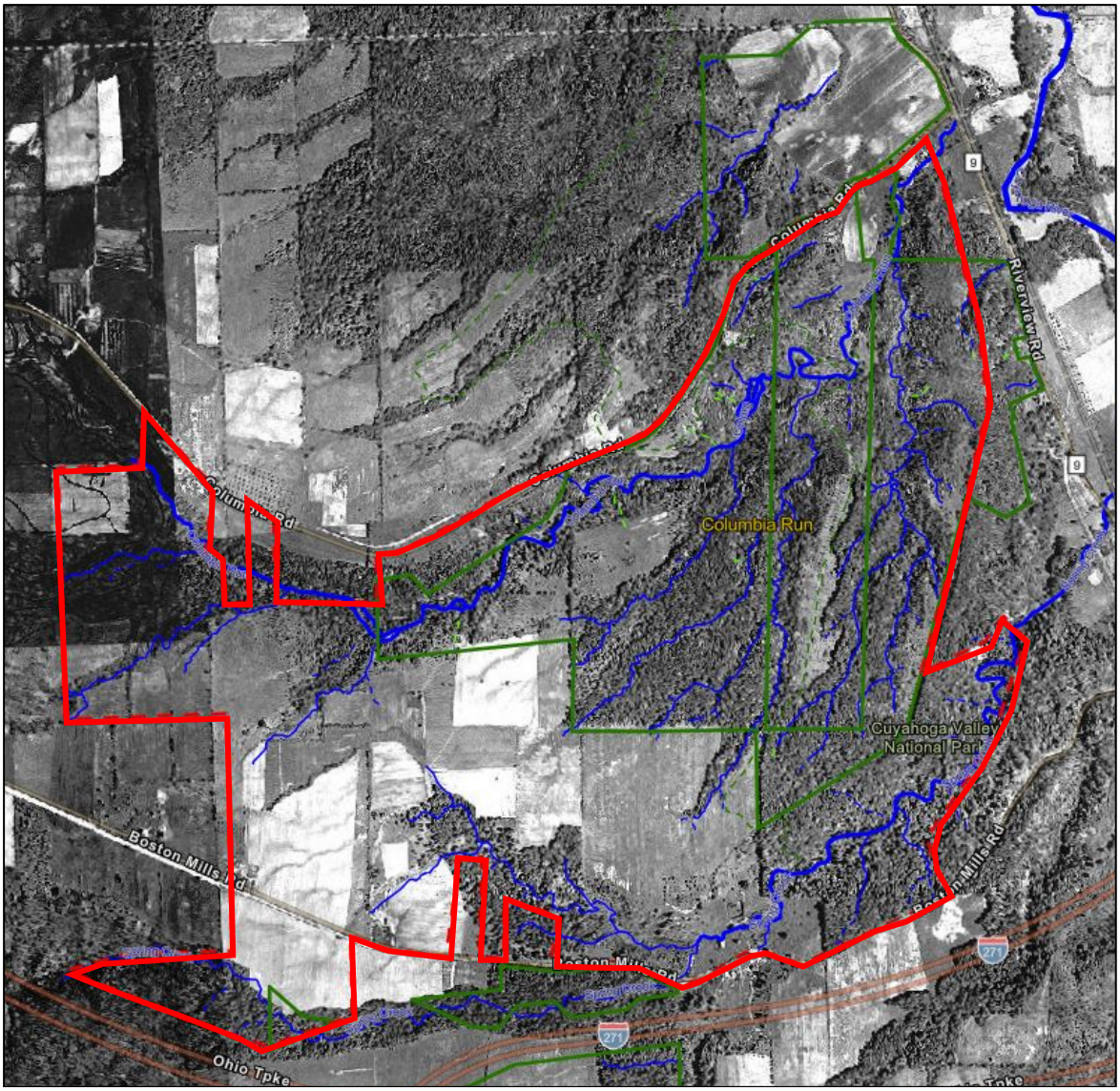


Figure 15: 1938 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

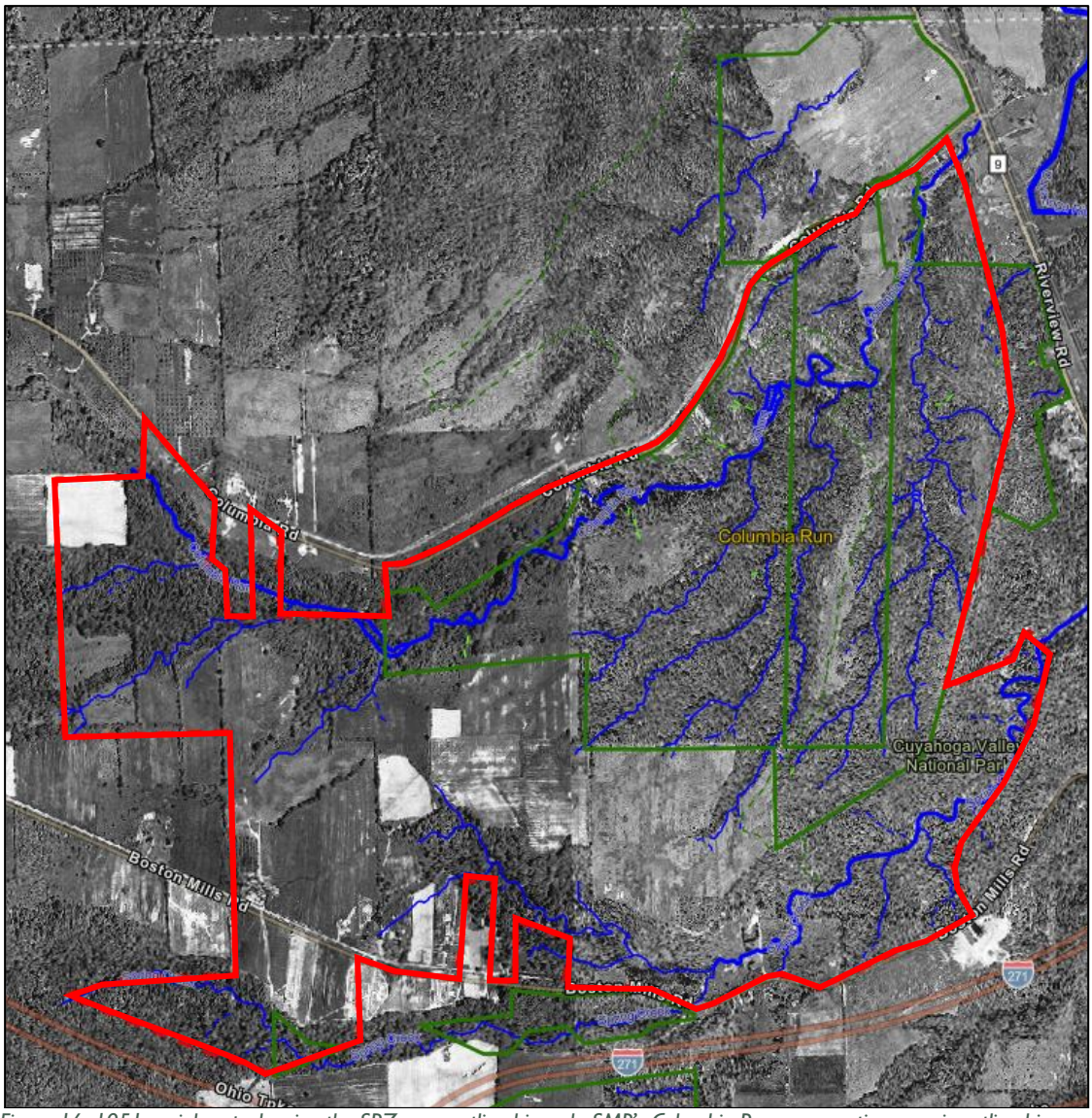


Figure 16: 1951 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

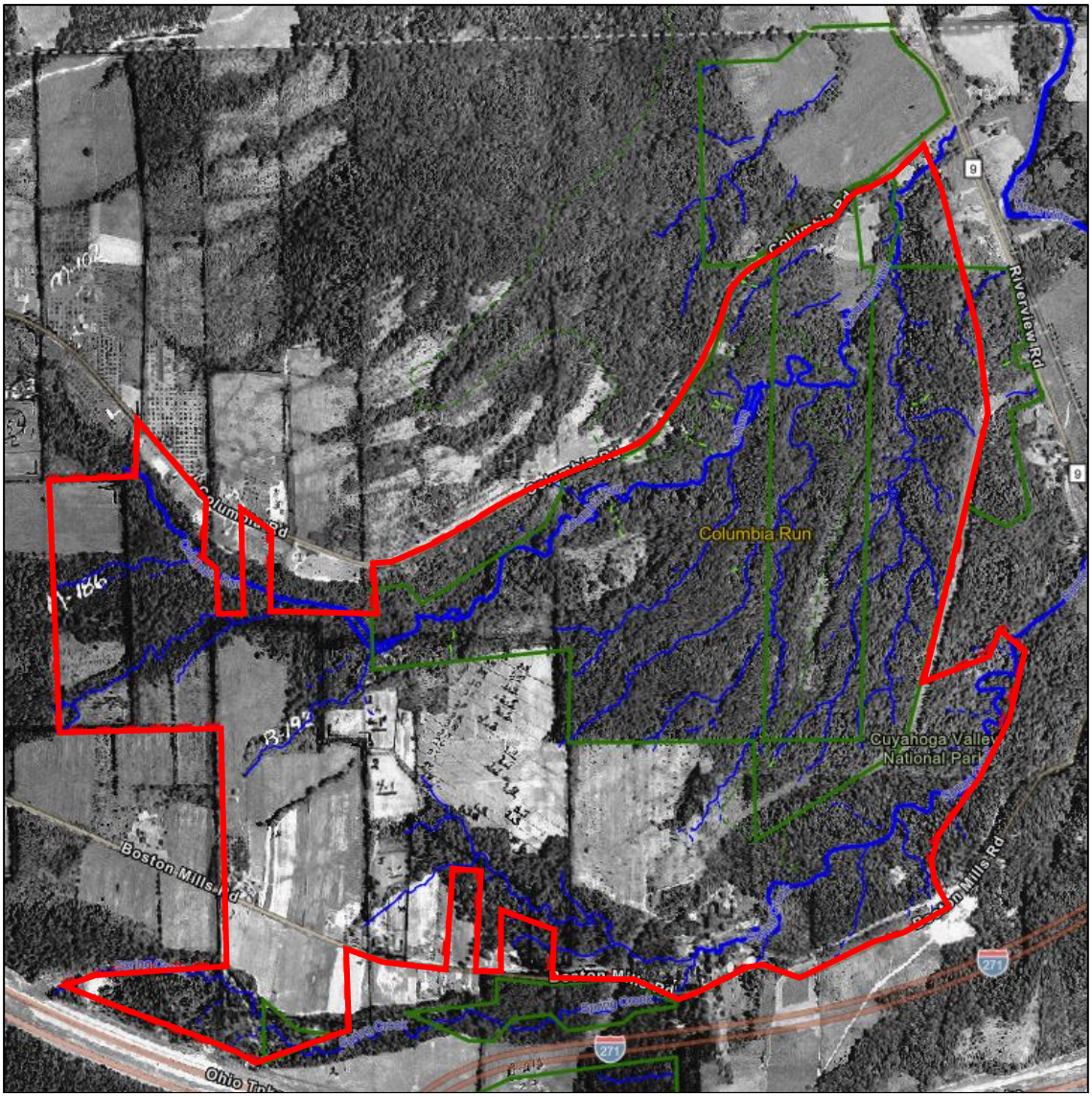


Figure 17: 1959 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

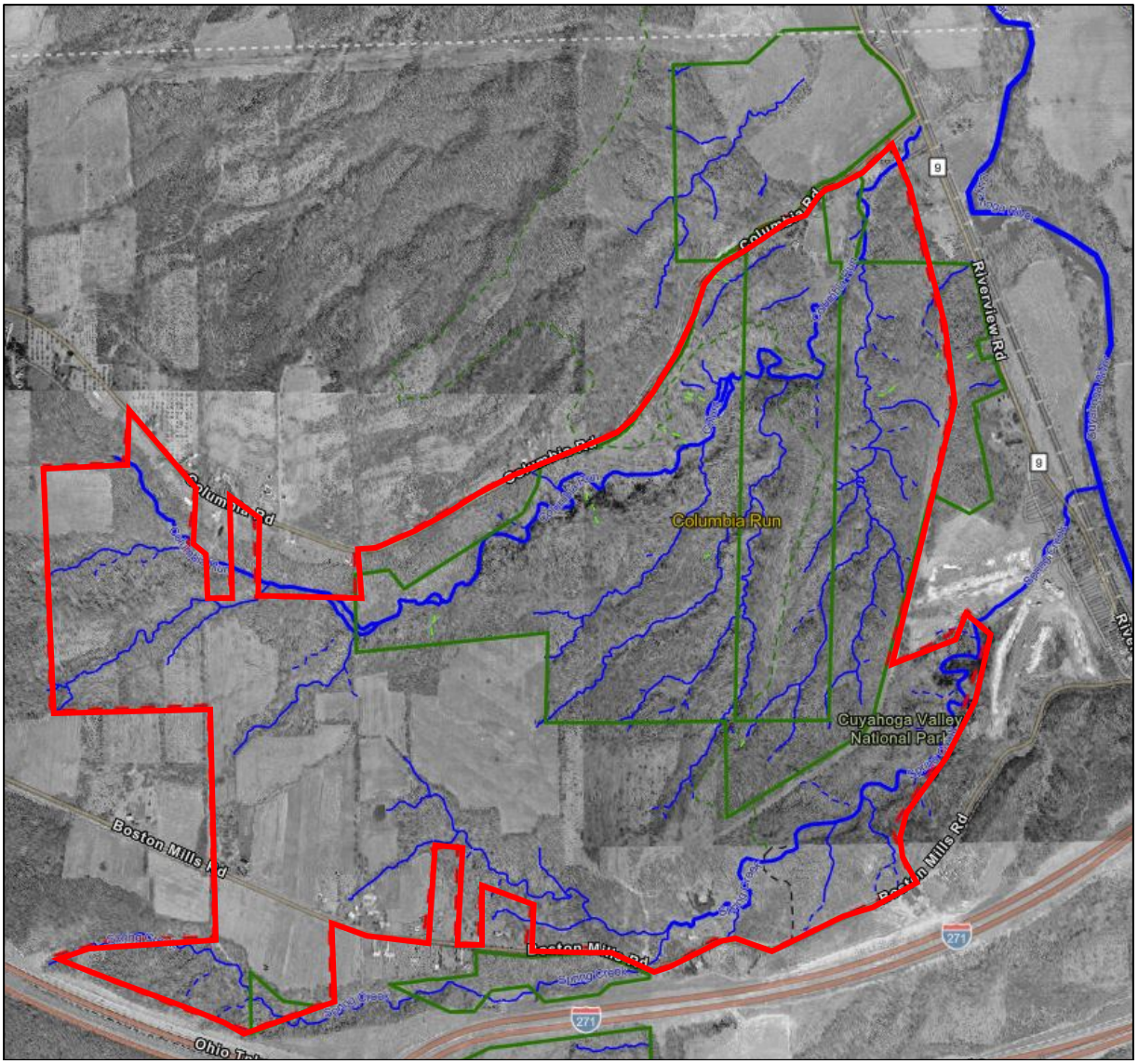


Figure 18: 1970 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

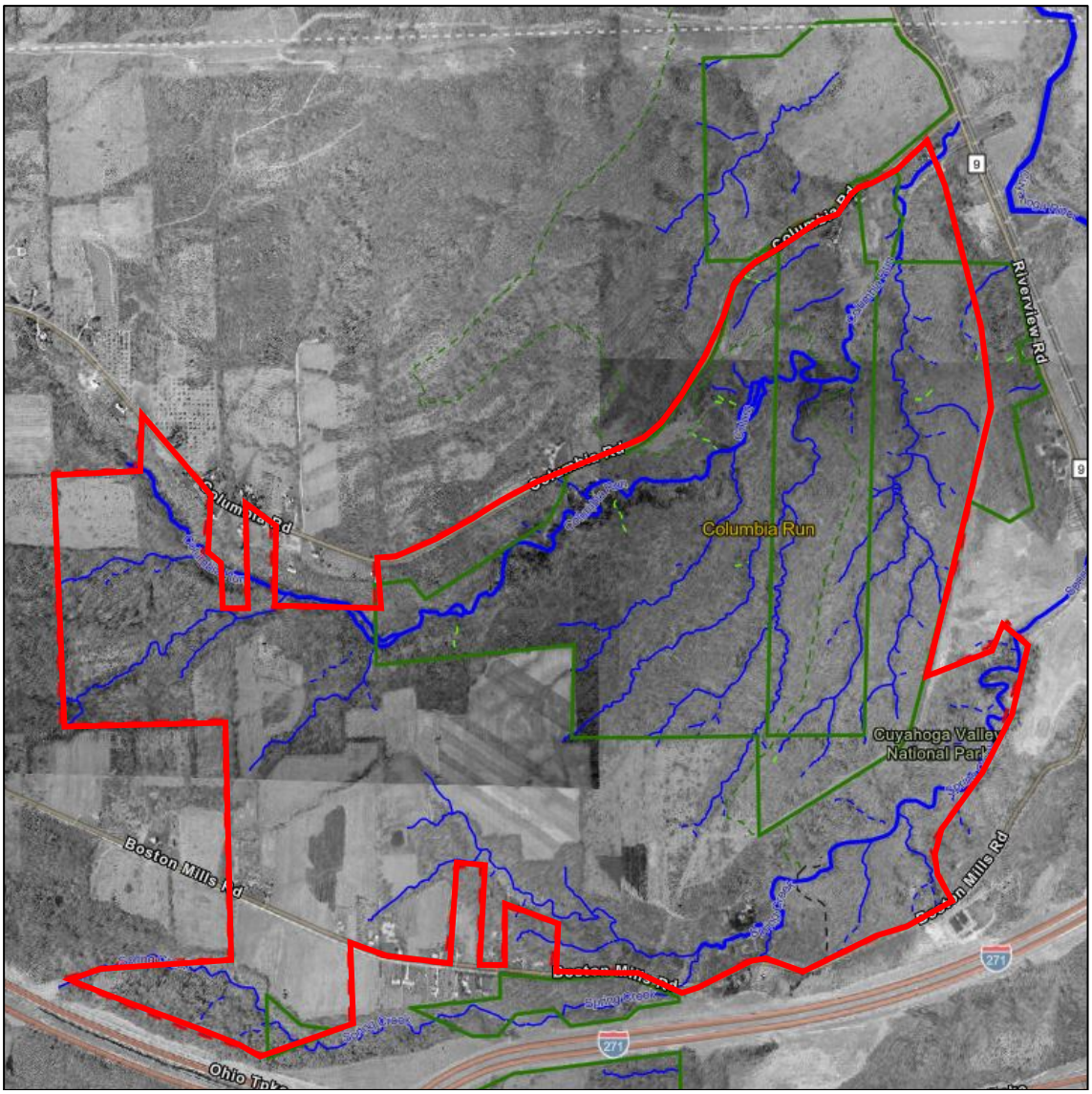


Figure 19: 1975 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

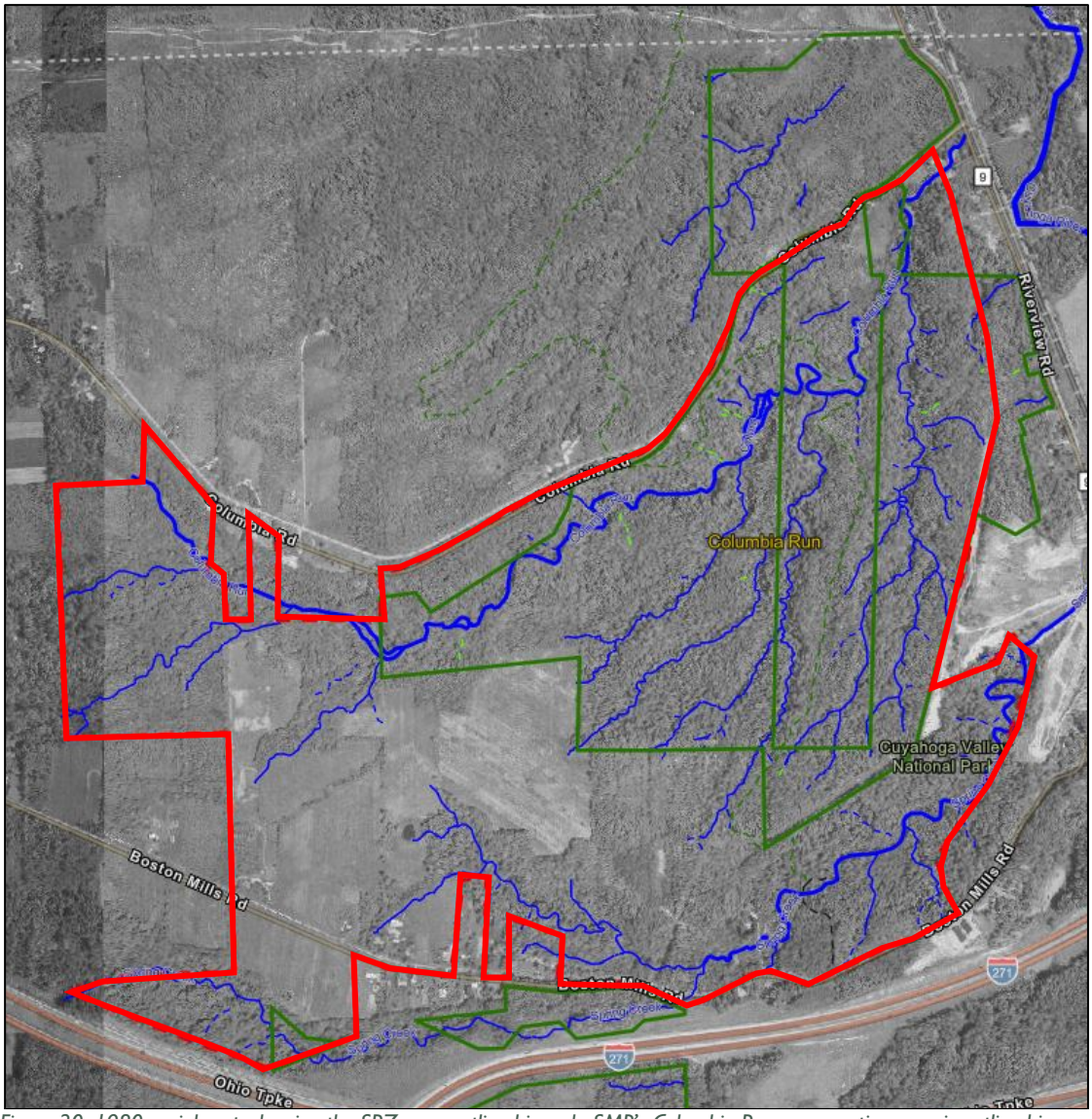


Figure 20: 1980 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

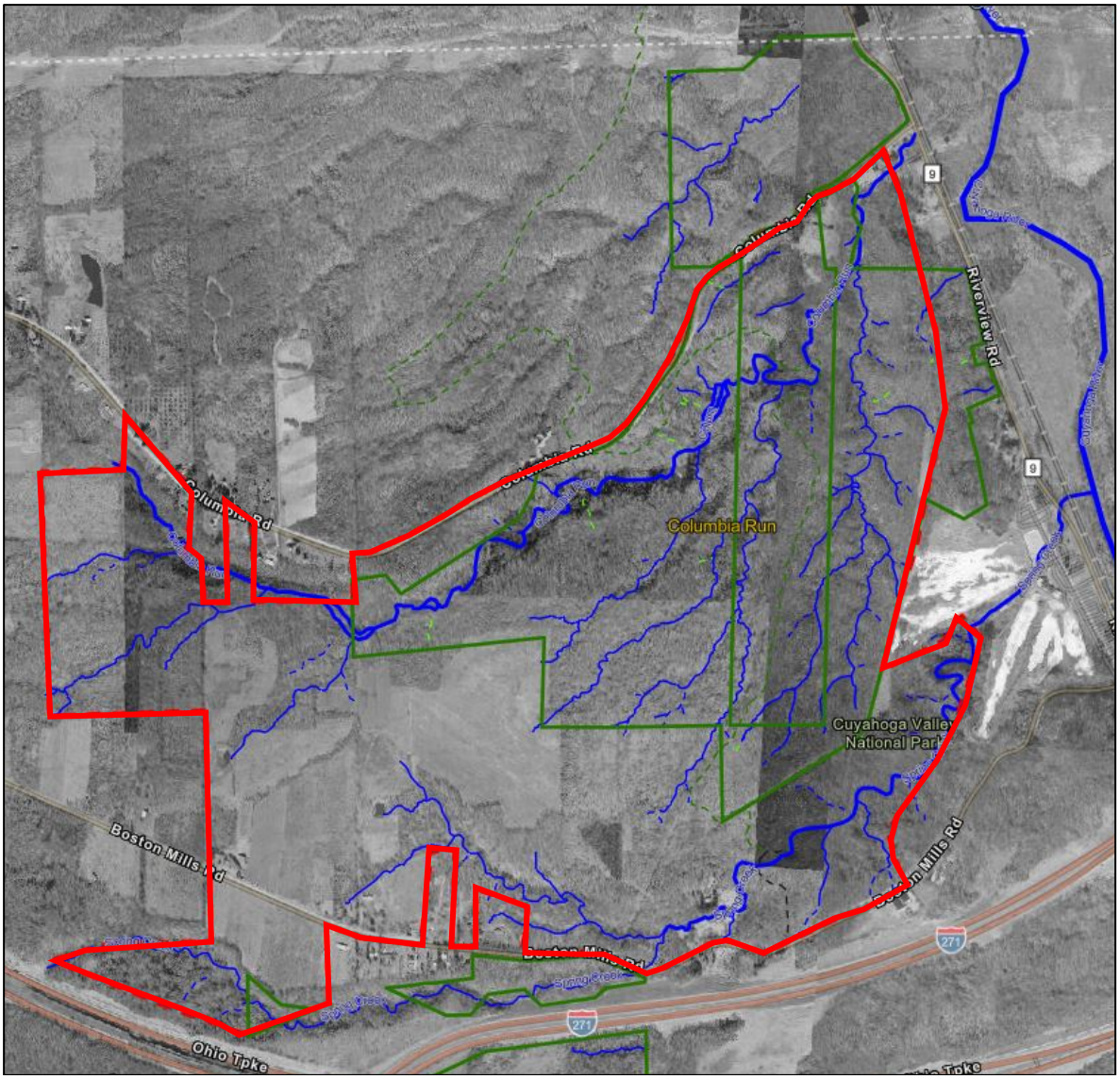


Figure 21: 1985 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

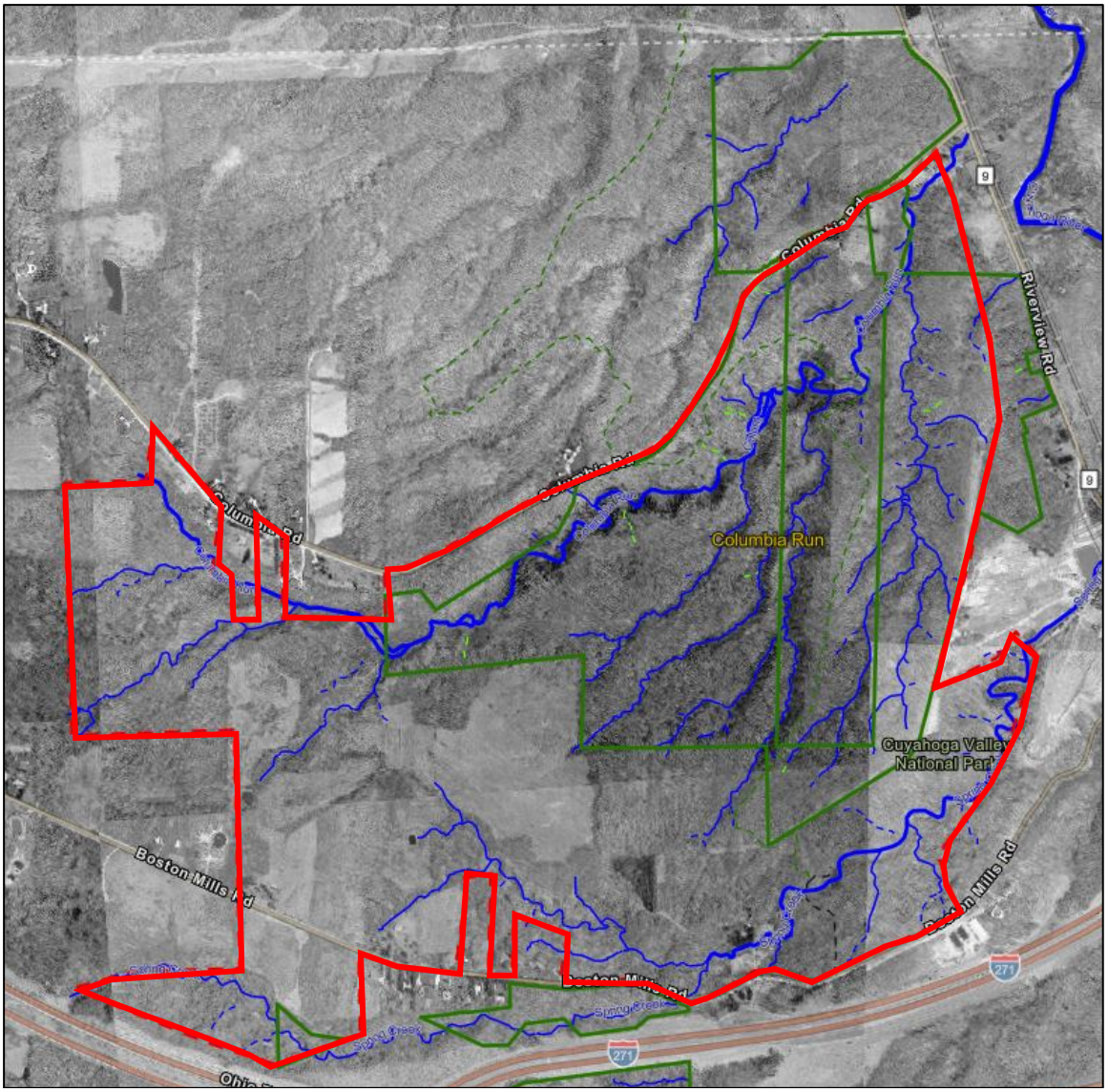


Figure 22: 1990 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

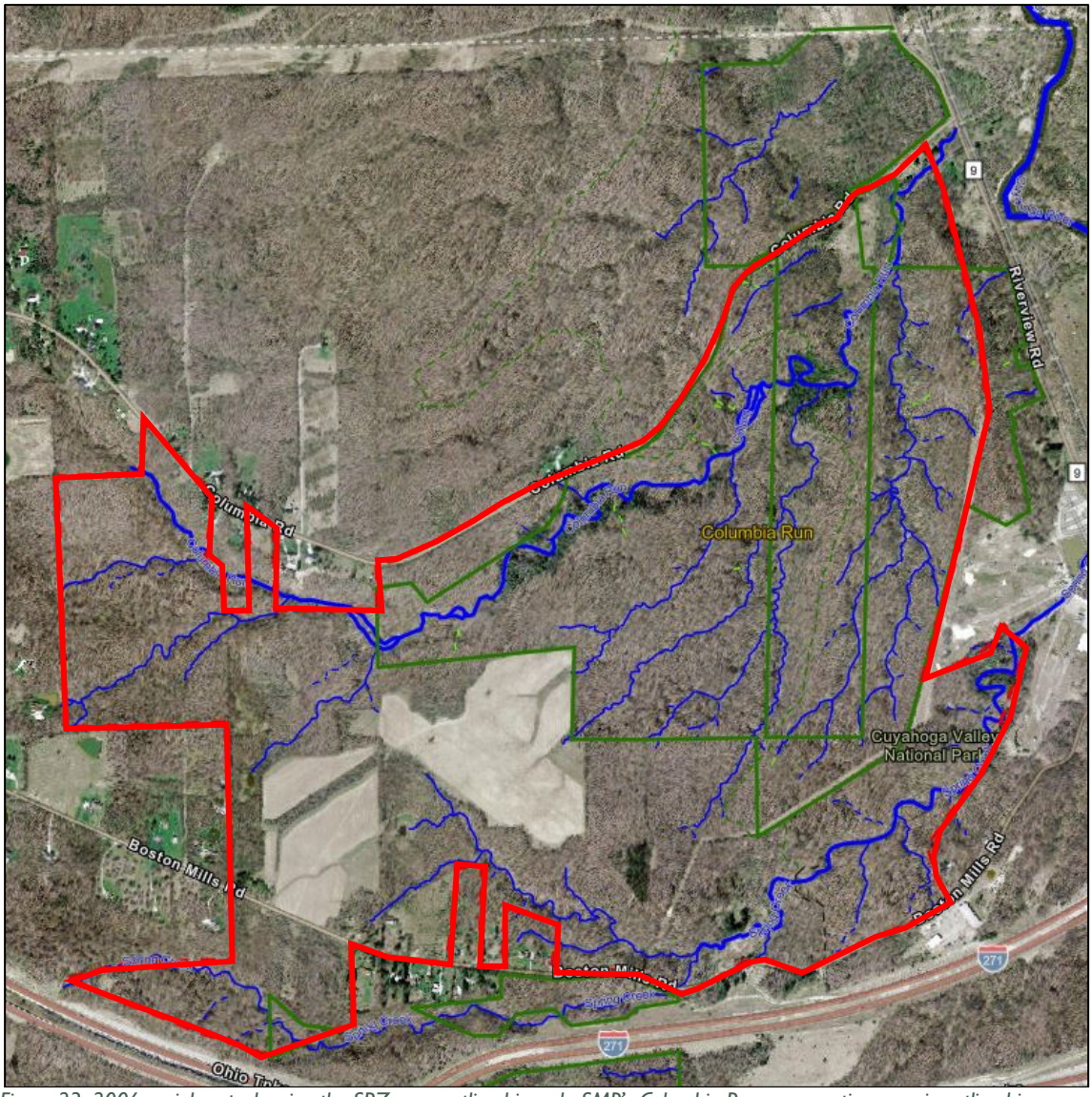


Figure 23: 2006 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

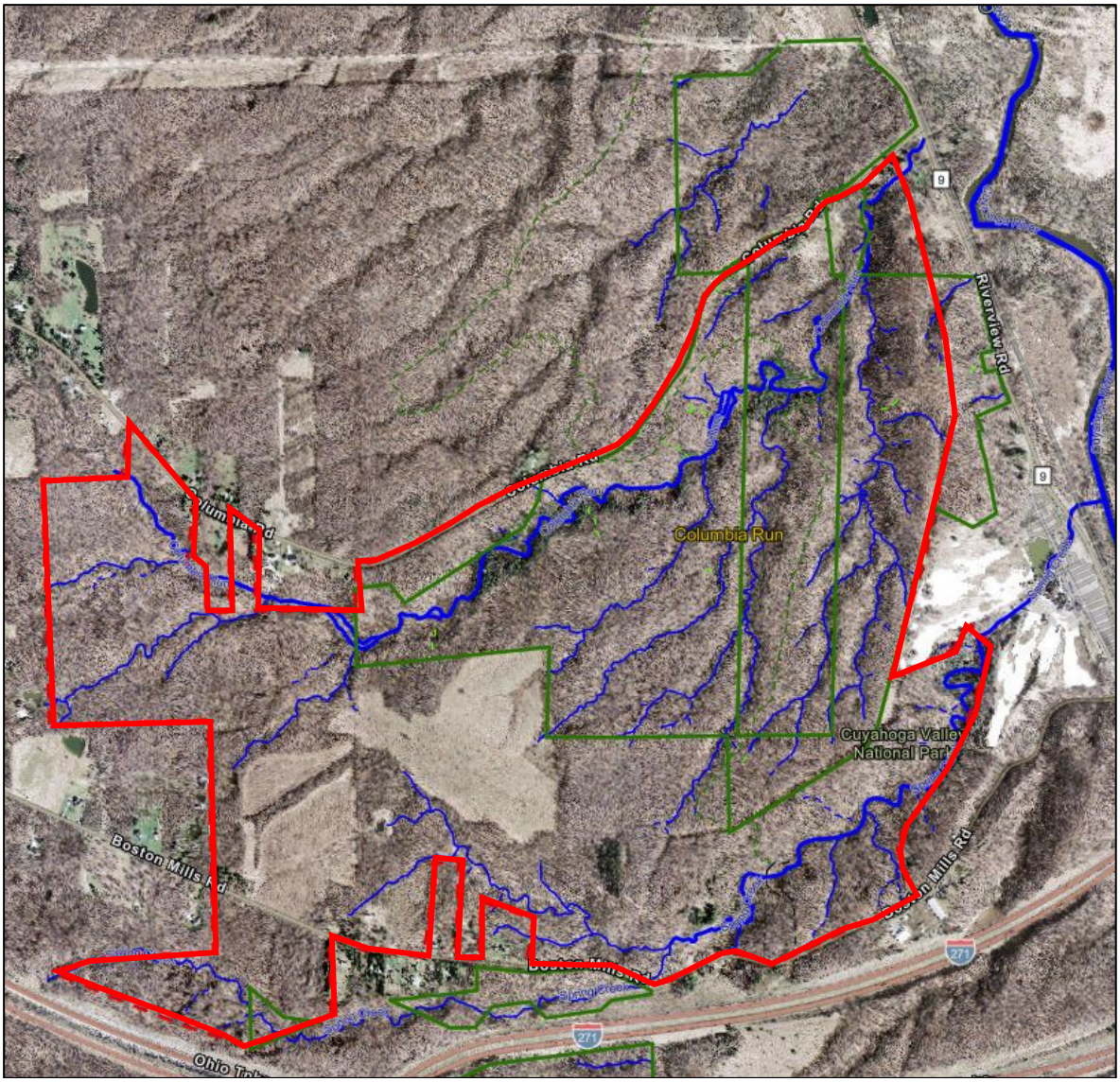


Figure 24: 2010 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

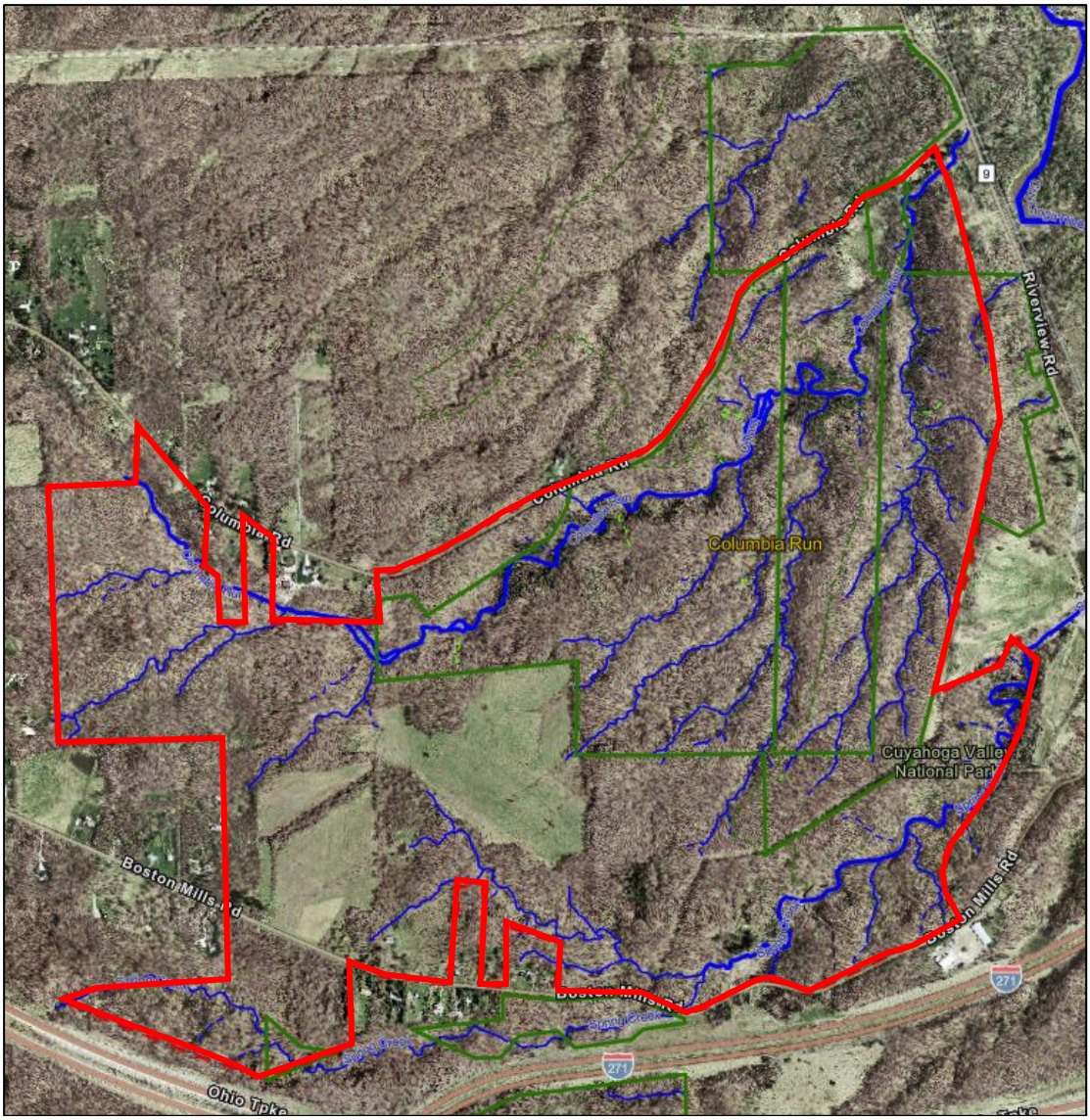


Figure 25: 2011 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

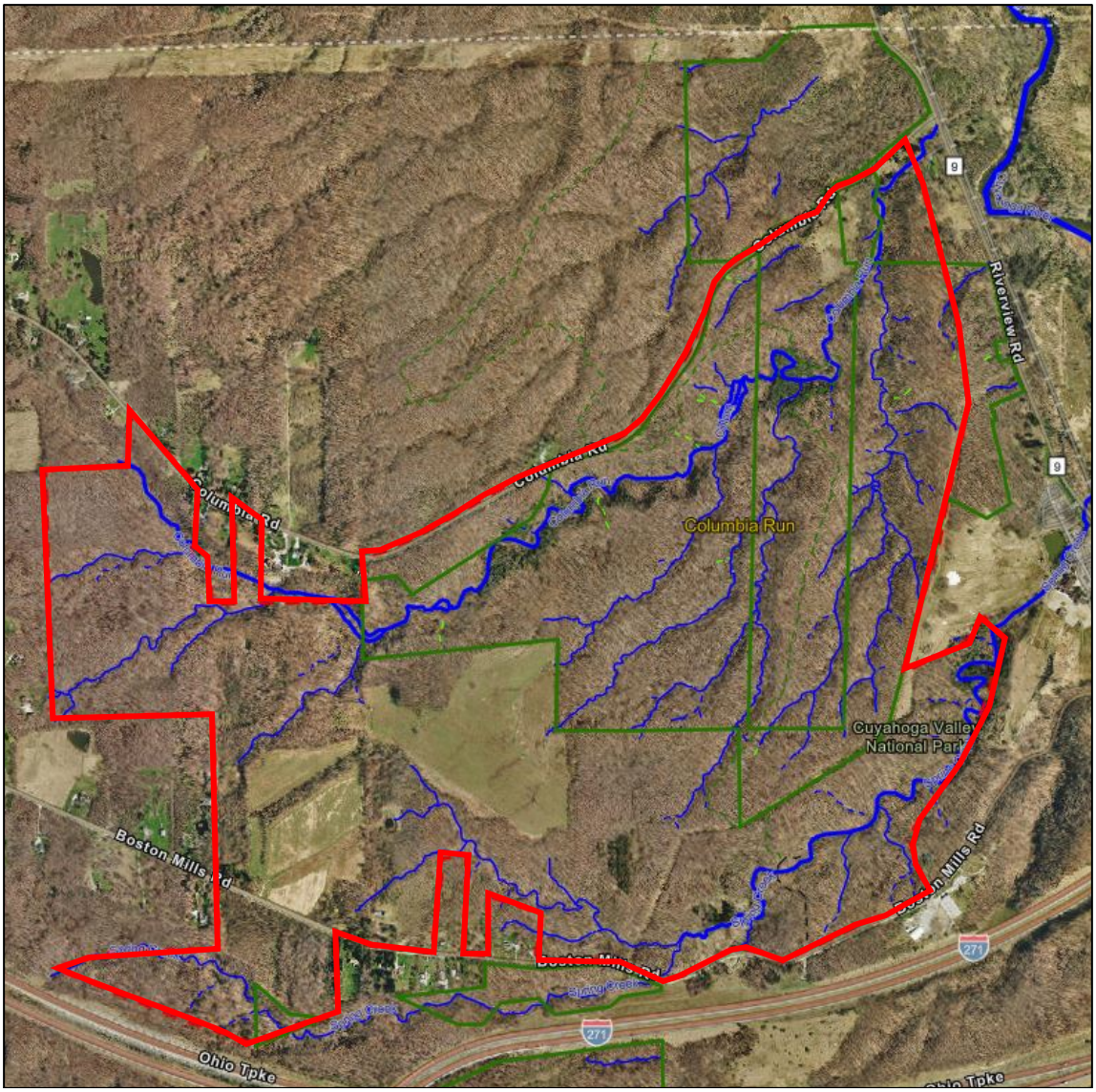


Figure 26: 2015 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

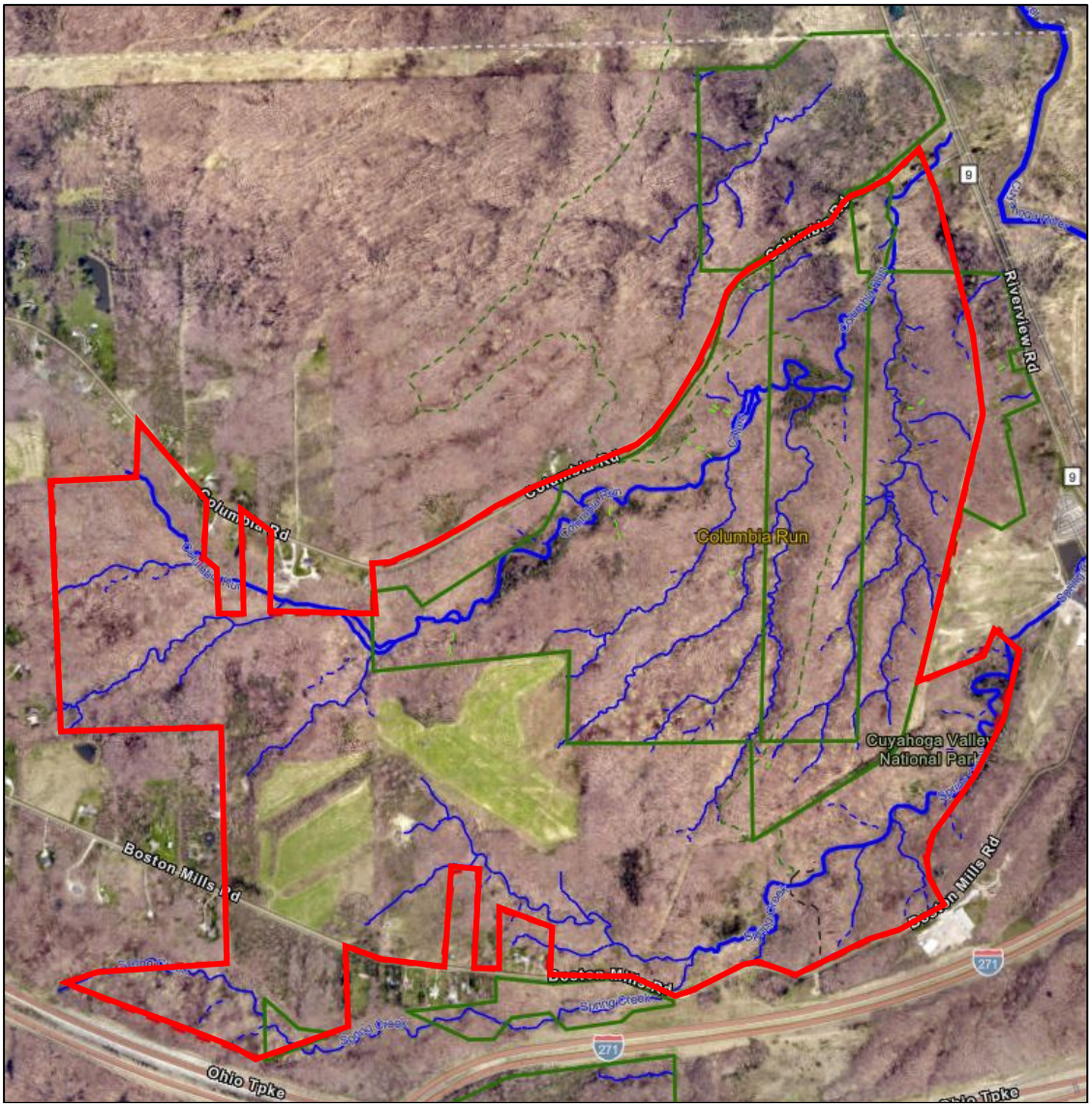


Figure 27: 2017 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

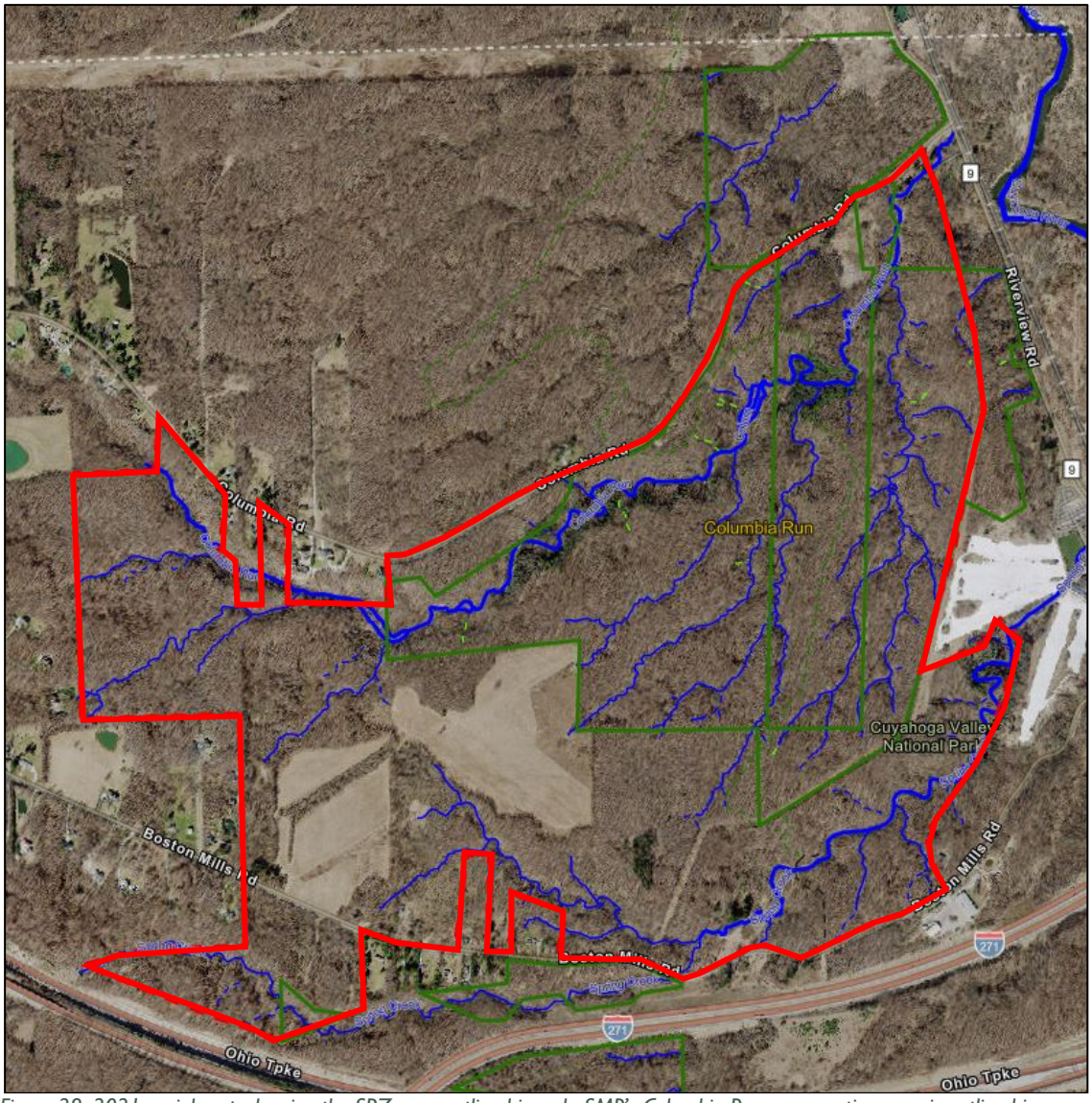


Figure 28: 2021 aerial map showing the SRZ area outlined in red. SMP's Columbia Run conservation area is outlined in green.

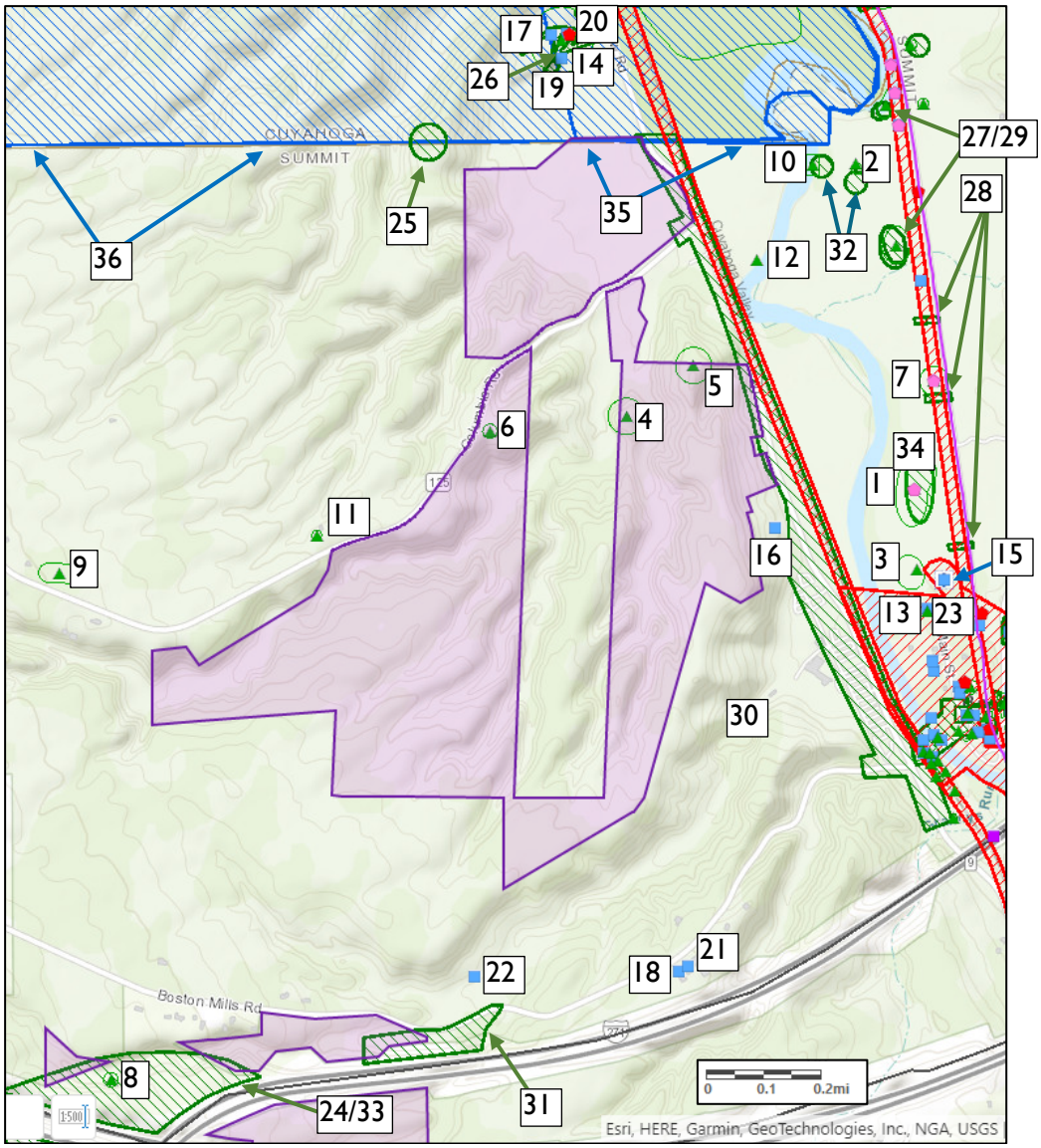


Figure 29: Mapping from OHPO's online GIS mapping showing OAIs, OHIs, and previously conducted surveys within 0.5 km (0.31 mi) of the Columbia Run Conservation Area within the SRZ.

OAI:

1. 33-Su-035
2. 33-Su-038
3. 33-Su-061
4. 33-Su-087
5. 33-Su-102
6. 33-Su-104
7. 33-Su-106
8. 33-Su-123
9. 33-Su-420
10. 33-Su-431
11. 33-Su-493
12. 33-Su-707
13. 33-Su-708
14. 33-Cu-333

OHI:

15. SUM0053704
16. SUM0246804
17. CUY0212020
18. SUM0198604
19. CUY0211920
20. CUY0047420
21. SUM0198504
22. SUM0202804
23. SUM0054204

Previous Surveys

Phase I:

24. Bush et al (1981)
25. Sauser et al (1985)
26. Lee and Brose (1987)
27. Noble (1988)
28. Noble (1989)
29. Noble (1990)
30. Whitman et al (1996)
31. Sewell et al (2007)
32. Wanyerka (2014)

Phase II:

33. Bush et al (1981)
34. Wanyerka (2010)

Previous Surveys

Historic Surveys:

35. Cuyahoga Co. Regional Planning Commission (1984)
36. Cuyahoga Co. Department of Community Development (1978)



Figure 30: Sandstone foundation blocks found at site 33-Su-104 during 2021 visual inspection.

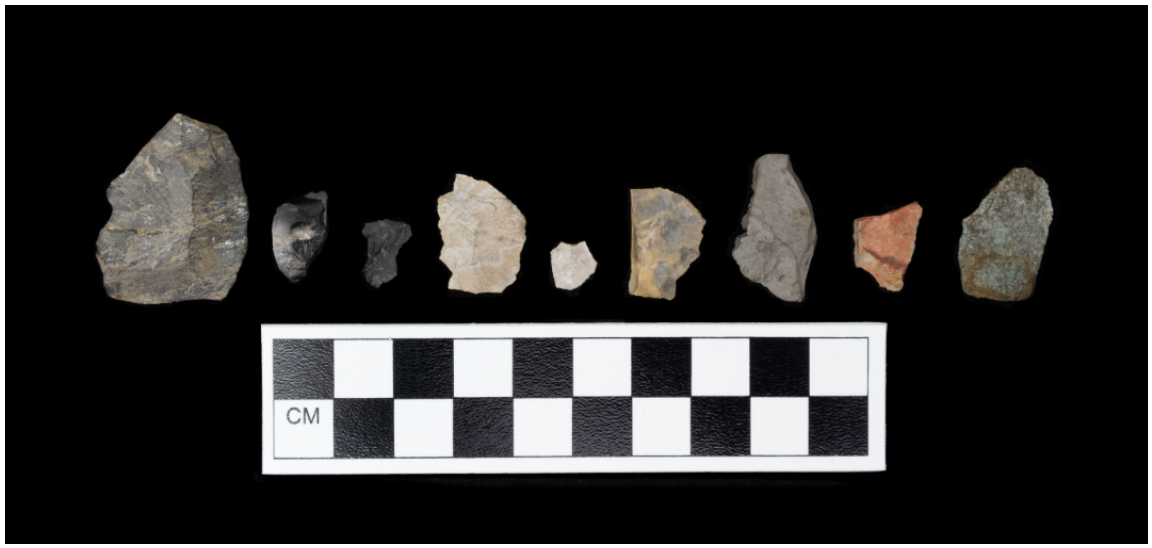


Figure 31: Nine chert flakes found during 2021 visual inspection of 33-Su-87



Figure 32: Four chert flakes, one FCR (top, center), and one partial projectile point (bottom, center) found during the 2021 visual inspection of FS1.

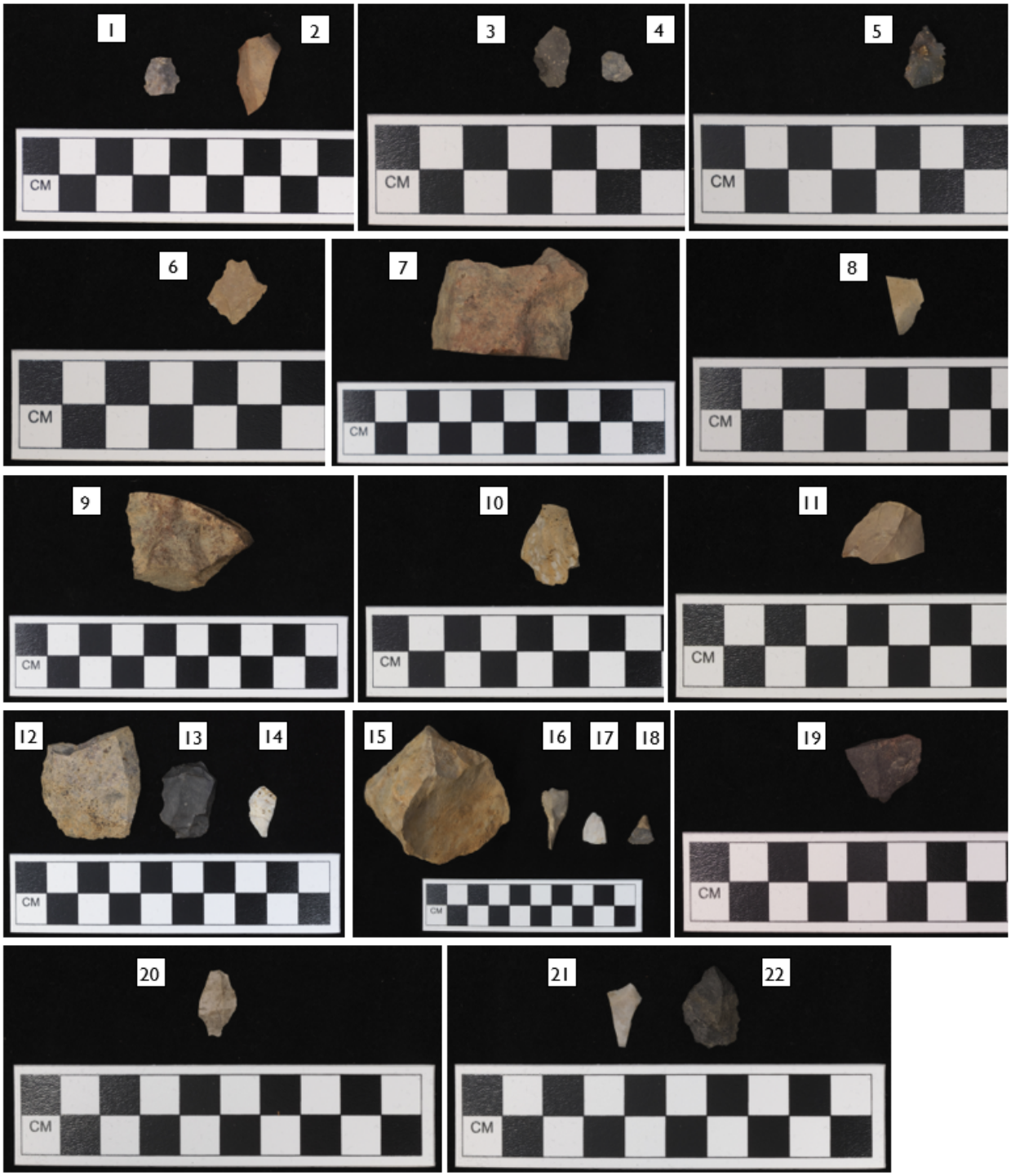


Figure 33: Artifacts identified and collected during the Phase I archaeological survey at COLRN FS1. Information about each artifact can be found in Table 2.



Figure 34: STU 90N/10W showing a typical soil profile for this area of an A horizon of 10YR 3/3 silt loam from 0-6 cm overlying a B horizon of 10YR 6/4 clay loam from 6-16 cm, with many rocks and roots present throughout the unit (see Table 3for more details).



Figure 35: STU 100N/20E showing small inclusion of 7.5YR 5/6 clay in northeast corner of the unit.



Figure 36: oblique view of STU 100N/20E, opened to 1 m by 1 m. No further artifacts or features were present in the unit, and the feature was irregular in size and shape. It is interpreted as resulting from natural processes.

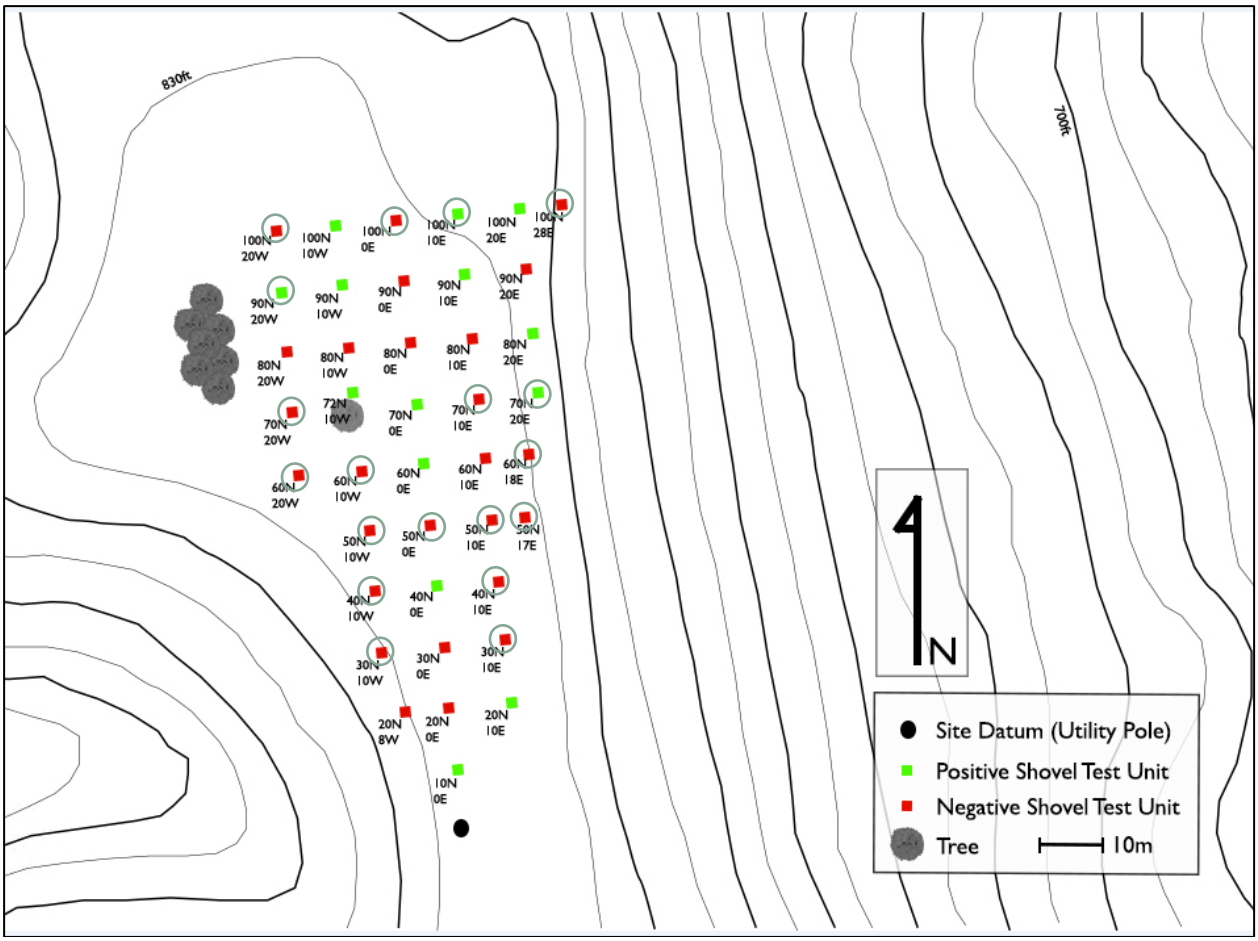


Figure 37: Map showing location of the shovel test units at 33-Su-717. Circled STUs had an A horizon depth of 5 cm or less.

Appendix B: Tables

Catalogue #	STU	Form	Material	(mm)	(g)	Description	Pic #	Temp Affil
CR1.2021.003.01	10N 0E	Flake	Chert	11x10x2	0.18	unknown chert, Upper mercer?	1	N/A
CR1.2021.003.02	10N 0E	Shatter	Chert	24x12x9	1.47	possibly Plum Run chert	2	N/A
CR1.2021.004.01	20N 10E	Flake	Chert	14x8x2	0.11	unknown chert, Delaware?	3	N/A
CR1.2021.004.02	20N 10E	Flake	Chert	9x7x2	0.04	unknown chert, Delaware?	4	N/A
CR1.2021.005.01	40N 0E	Flake	Chert	15x10x3	0.3	Upper Mercer	5	N/A
CR1.2021.006.01	60N 0E	Flake	Chert	13x11x2	0.24	Plum Run	6	N/A
CR1.2021.007.01	70N 20E	FCR	Sandstone	42x34x27	45.43	red coloration, multiple uneven fractures	7	N/A
CR1.2021.008.01	70N 0E	Flake	Chert	15x8x1	0.18	Delaware or glacial chert	8	N/A
CR1.2021.009.01	100N 20E	FCR	Sandstone	41x39x28	22	red coloration, multiple uneven fractures	9	N/A
CR1.2021.009.02	100N 20E	CO	Wood	N/A	10	stored in aluminum foil packet	N/A	N/A
CR1.2021.010.01	90N 10E	Shatter	Chert	23x17x7	2.13	Cedarville chert	10	N/A
CR1.2021.011.01	80N 20E	Shatter	Chert	20x16x8	2.14	probably glacial chert	11	N/A
CR1.2021.012.01	100N 10E	Broken Point	Chert	36x32x8	9.88	Cedarville chert, unidentified point style, ovoid, pos. unfinished	12	Unk
CR1.2021.012.02	100N 10E	Flake	Chert	26x18x4	1.56	Upper Mercer	13	N/A
CR1.2021.012.03	100N 10E	Flake	Chert	17x9x2	0.22	Cedarville chert	14	N/A
CR1.2021.013.01	100N 10W	Nodule	Chert	67x63x60	132.75	Delaware, Cedarville, or glacial, fossils present, pos. evidence of material being flaked off	15	N/A
CR1.2021.013.02	100N 10W	Flake	Chert	30x14x9	1.62	Upper Mercer, Flint Ridge	16	N/A
CR1.2021.013.03	100N 10W	Flake	Chert	16x12x2	0.37	Flint Ridge?, heat treated	17	N/A
CR1.2021.013.04	100N 10W	Flake	Chert	15x13x8	0.66	Upper Mercer chert	18	N/A
CR1.2021.014.01	90N 10W	Flake	Chert	20x12x4	0.94	possibly Kanawha Black chert	19	N/A
CR1.2021.015.01	90N 20W	Flake	Chert	17x10x3	0.42	probably glacial chert	20	N/A
CR1.2021.016.01	72N 10W	Flake	Chert	16x9x3	0.26	Flint Ridge chert	21	N/A
CR1.2021.016.02	72N 10W	Flake	Chert	21x15x5	1	Kanawha Black chert	22	N/A

Table 2: Artifact table for the artifacts identified and collected during the Phase I archaeological survey at COLRN FS1. Pic # refers to ***Error! Reference source not found.****.*

Unit	Soil Desc. 1	Soil Desc. 2	Soil Desc. 3	Artifacts?
0N/0E	electrical pole: not dug due to disturbance.	n/a	n/a	n/a
10N/0E	A: 0-11cm = 10YR 3/4 silt loam, many roots, dry, friable. @ first 4 cm = O layer	B: 11+cm = 10YR 5/4 clay loam, some mottling w/ A b/c of roots		1 flake, 1 shatter
20N/0E	A: 0-11cm = 10YR 4/4 silt loam, hard, dry, some roots	B: 11-15cm = 10YR 5/4 clay loam, some roots, packed and dry		0
30N/0E	A: 0-9cm = 10YR 4/4 silt loam mixed w/ organic material	B: 9-12cm = 10YR 5/4 clay loam, very dry, packed, some roots, few larger rocks		0
40N/0E	A: 0-9cm = 10YR 4/4 silt loam, roots & organic material, friable	B: 9-12cm = 10YR 5/4 clay loam, very dry, packed, some roots and rocks		1 flake
50N/0E	A: 0-5cm = 10YR 3/4 silt loam, some roots, some rocks, lots of organic material	B: 6-11cm = 10YR 6/4 clay loam, very dry and packed, some roots, some rocks, some possible evidence of leaching		0
60N/0E	A: 0-11cm = 10YR 3/4 silt loam, lots of roots and organic material, some rocks	B: 11-14cm = 10YR 5/4 clay loam, dry and packed, some roots, some rocks		1 flake
70N/0E	A: 0-12cm = 10YR 3/3 silt loam, lots of roots and some rocks	B: 12-17cm = 10YR 5/4 clay loam, some roots, some rocks, very dry and packed		1 flake
80N/0E	A: 0-11cm = 10YR 3/4 silt loam, very gravelly, some larger rocks, some roots	B: 11-15cm = 10YR 6/4 clay loam, very dry and packed, some rocks		0
90N/0E	A: 0-7cm = 10YR 3/4 silt loam, very friable, lots of roots, lots of gravel/rocks	B: 7-14cm = 10YR 6/4 clay loam, lots of roots, lots of rocks/gravel		0
100N/0E	A: 0-4cm = 10YR 2/3 silt loam (O horizon), very organic, some rocks, lots of roots	B: 4-8cm = 10YR 5/4 clay loam, lots of gravel and rocks, some roots		0
20N/10E	A: 0-10cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 10-15cm = 10YR 7/3 very dry clay		2 flakes
30N/10E	A: 0-4.5cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 4.5-10cm = 10YR 7/3 very dry clay, several medium sized roots		0
40N/10E	A: 0-2cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 2-7cm = 10YR 7/3 very dry clay, some fist-sized rocks and smaller gravel		0
50N/10E	A: 0-1cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 1-5cm = 10YR 7/3 very dry clay		0
60N/10E	A: 0-7cm = 10YR 3/4 silt loam, lots of roots, some med sized rocks	B: 7-12cm = 10YR 6/4 clay loam, very dry and packed. Some roots, some rocks.		
70N/10E	A: 0-5cm = 10YR 3/4 silt loam, many large roots	B: 5-10cm = 10YR 5/4 clay loam, many roots		0
80N/10E	A: 0-11cm = 10YR 3/3 silt loam, very friable, lots or organic material, lots of gravel, some large rocks	B: 11-15cm = 10YR 5/4 clay loam, some roots, packed and dry		0
90N/10E	A: 0-9cm = 10YR 3/4 silt loam, friable, many roots, some rocks	B: 9-12cm = 10YR 5/4 clay loam, come roots, some rocks		1 shatter
100N/10E	A: 0-5cm = 10YR 5/4 yellowish brown, very dry silty loam, gravel, roots	B: 5-6cm = 10YR 7/3 very dry clay, very large rock in center		2 flakes, 1 broken projectile point

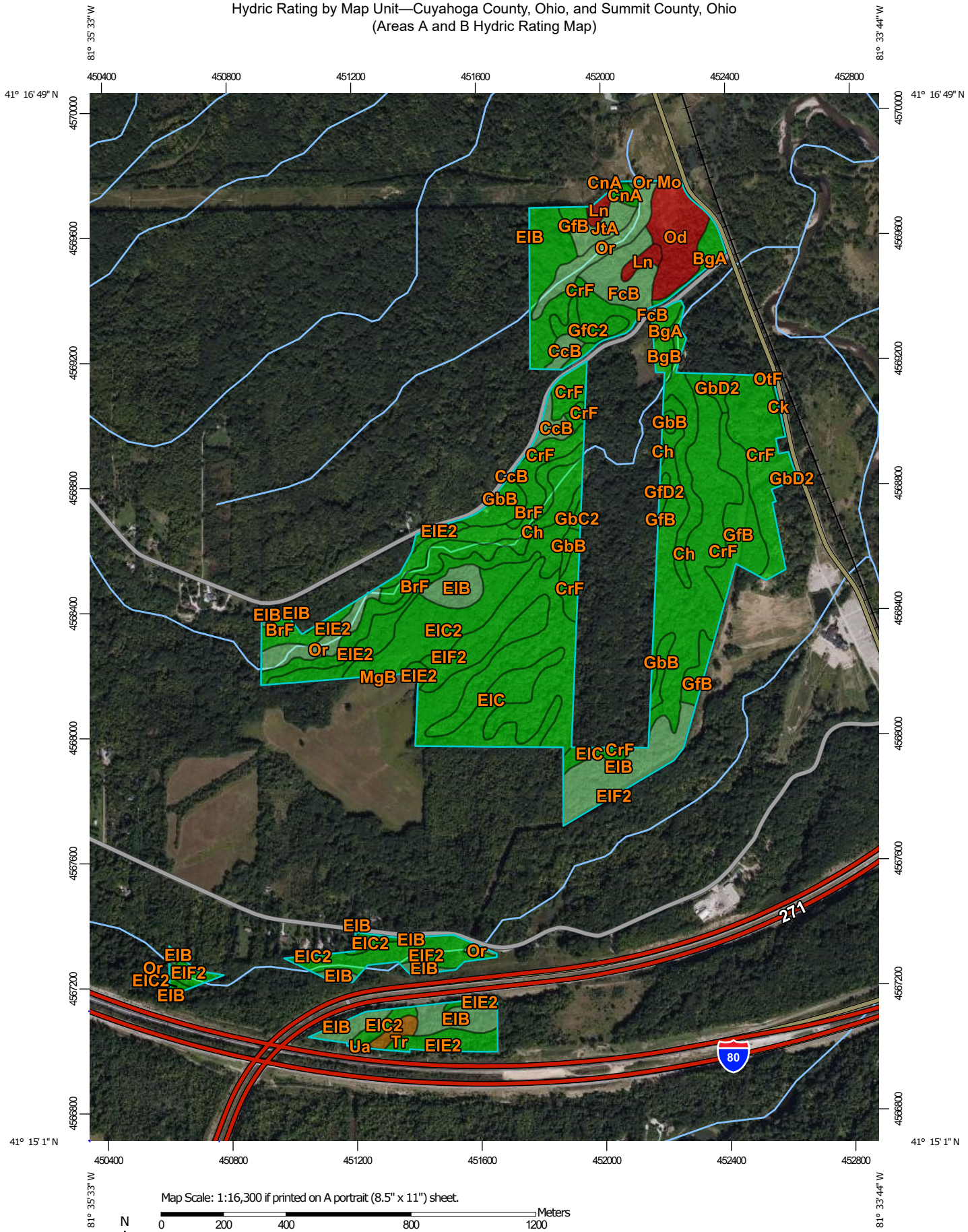
20N/8W	not dug due to slope	n/a	n/a	n/a
30N/10W	A: 0-1cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 1-4cm = 10YR 7/3 very dry clay		0
40N/10W	A: 0-2cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 2-5cm = 10YR 7/3 very dry clay		0
50N/10W	A: 0-3cm = 10YR 3/4 silt loam, very friable, many roots and some rocks	B: 3-9cm = 10YR 6/4 clay loam, very dry and packed, some rocks, some roots		0
60N/10W	A: 0-3cm = 10YR 3/4 silt loam, many rocks and roots, very friable thin organic layer	B: 3-4 cm = 10YR 6/4 clay loam, very dry and packed, some roots, some rocks		0
72N/10W	A: 0-8cm = 10YR 3/4 silt loam, many roots, many rocks, friable	B: 8-12cm = 10YR 6/4 clay loam, many rocks, some roots		2 flakes
80N/10W	A: 0-7cm = 10YR 3/3 silt loam, organic material, roots and rocks	B: 7-17cm = 10YR 5/4 clay loam, many roots and rocks		0
90N/10W	A: 0-6cm = 10YR 3/3 silt loam, organic, friable, many roots and rocks	B: 6-16cm = 10YR 6/4 clay loam, many roots and rocks		1 shatter
100N/10W	A: 0-9cm = 10YR 3/3 silt loam, organic material and roots, gravel	B: 9-17cm = 7.5YR 5/4 clay loam, gravel & many rocks, many roots		3 flakes, 1 nodule
50N/17E	A: 0-1cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 1-4cm = 10YR 7/3 very dry clay		0
60N/18E	A: 0-3cm = 10YR 5/4 yellowish brown, very dry silty loam, fist-sized rocks	B: 3-6cm = 10YR 7/3 very dry clay		0
70N/20E	A: 0-3cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 3-5cm = 10YR 7/3 very dry clay, several med. sized roots, old chipmunk burrows		1 FCR
80N/20E	A: 0-10cm = 10YR 5/4, very dry silty loam, large roots, several worms, 2 small flecks of charcoal	B: 10-15cm = 10YR 7/3 very dry clay		1 pos shatter
90N/20E	A: 0-12cm = 10YR 5/4, very dry silty loam, large roots, chipmunk burrows	B: 12-18cm = 10YR 7/3 very dry clay		0
100N/20E	A: 0-12cm = 10YR 3/4, silty loam, not as dry as other units, roots, worms	possible feature: 13-23cm 7.5YR 5/6, clay, small rocks, charcoal flecks, NE corner, extends into subsoil, pos. associated FCR	B: 23+ cm = 10YR 5/4 clay	charcoal, 1 FCR
100N/28E	A: 0-0.5cm = 10YR 5/4, very dry silty loam, roots	B: 0.5-5cm = 10YR 7/3 very dry clay, roots		0
60N/20W	A: 0-5cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 5-8cm = 10YR 7/3 very dry clay		0
70N/20W	A: 0-3cm = 10YR 5/4 yellowish brown, very dry silty loam, some gravel	B: 3-5cm = 10YR 7/3 very dry clay, large roots		0
80N/20W	A: 0-6cm = 10YR 5/4 yellowish brown, very dry silty loam, roots	B: 6-8cm = 10YR 7/3 very dry clay, large roots		0
90N/20W	A: 0-4cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 4-7cm = 10YR 7/3 very dry clay		1 flake

100N/20W	A: 0-2cm = 10YR 5/4 yellowish brown, very dry silty loam	B: 2-6cm = 10YR 7/3 very dry clay		0

Table 3: Shovel test data for the Phase I archaeological survey at COLRN FS1.

Appendix C: Environmental Information

Hydric Rating by Map Unit—Cuyahoga County, Ohio, and Summit County, Ohio
(Areas A and B Hydric Rating Map)



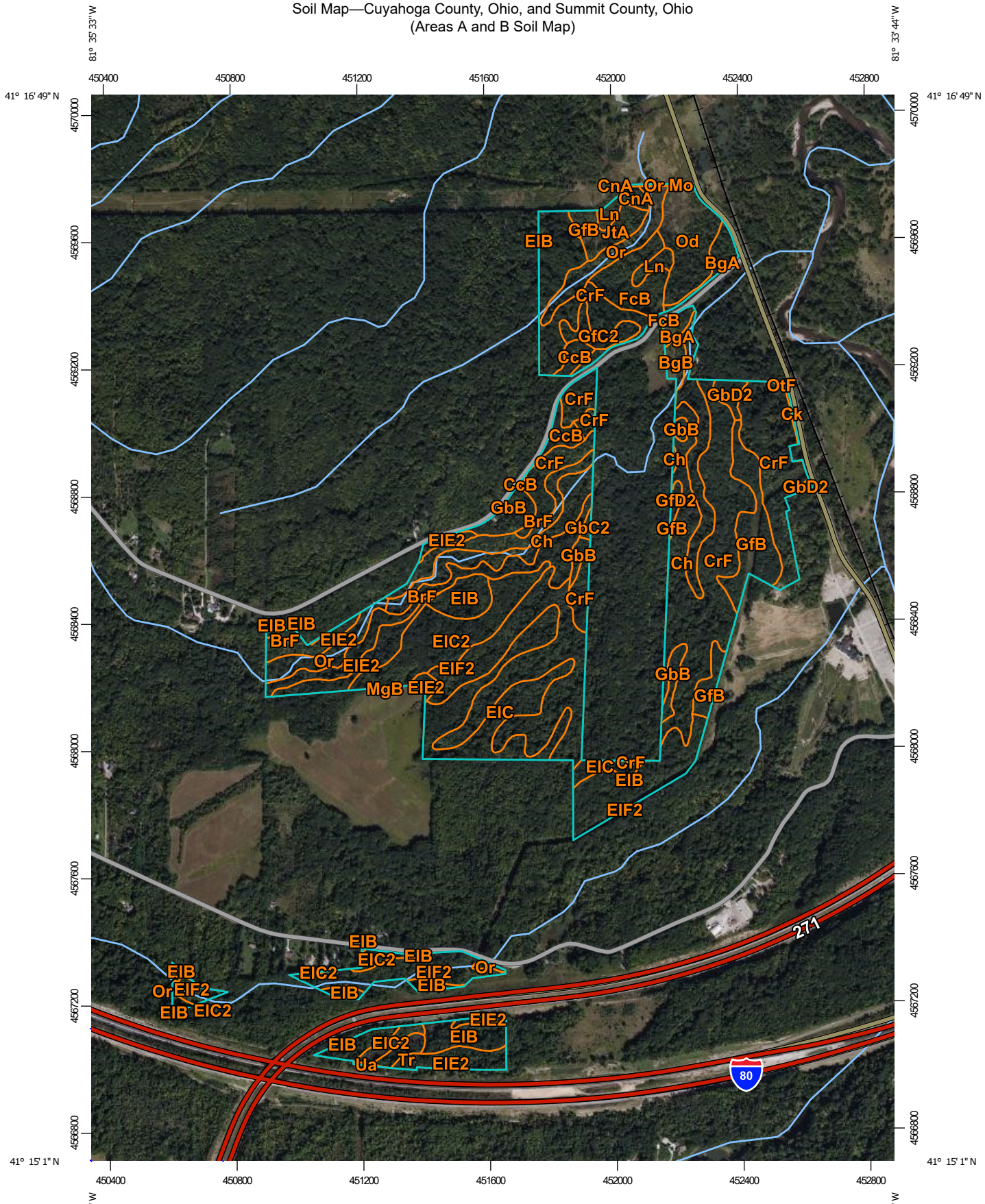
Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CnA	Chili loam, 0 to 2 percent slopes	0	0.0	0.0%
Mo	Mermill loam	92	0.1	0.0%
Or	Orrville silt loam, frequently flooded	5	0.1	0.0%
Subtotals for Soil Survey Area			**0.3**	**0.1%**
Totals for Area of Interest			**344.4**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BgA	Bogart loam, 0 to 2 percent slopes	0	4.3	1.2%
BgB	Bogart loam, 2 to 6 percent slopes	0	1.9	0.6%
BrF	Brecksville silt loam, 25 to 80 percent slopes, very rocky	0	24.5	7.1%
CcB	Caneadea silt loam, 2 to 6 percent slopes	3	4.2	1.2%
Ch	Chagrin silt loam	0	18.9	5.5%
Ck	Chagrin silt loam, alkaline	0	0.3	0.1%
CnA	Chili loam, 0 to 2 percent slopes	0	1.2	0.4%
CrF	Cardinal-Mentor silt loams, 25 to 75 percent slopes	0	85.0	24.7%
ElB	Ellsworth silt loam, 2 to 6 percent slopes	5	29.0	8.4%
ElC	Ellsworth silt loam, 6 to 12 percent slopes	0	22.5	6.5%
ElC2	Ellsworth silt loam, 6 to 12 percent slopes, eroded	0	21.3	6.2%
ElE2	Ellsworth silt loam, 12 to 25 percent slopes, eroded	0	13.9	4.0%
ElF2	Ellsworth silt loam, 25 to 50 percent slopes, eroded	0	44.4	12.9%
FcB	Fitchville silt loam, 2 to 6 percent slopes	10	8.4	2.5%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
GbB	Geeburg silt loam, 2 to 6 percent slopes	0	8.6	2.5%
GbC2	Geeburg silt loam, 6 to 12 percent slopes, moderately eroded	0	0.5	0.1%
GbD2	Geeburg silt loam, 12 to 18 percent slopes, moderately eroded	0	2.1	0.6%
GfB	Glenford silt loam, 2 to 6 percent slopes	0	15.0	4.4%
GfC2	Glenford silt loam, 6 to 12 percent slopes, eroded	0	3.2	0.9%
GfD2	Glenford silt loam, 12 to 18 percent slopes, eroded	0	0.8	0.2%
JtA	Jimtown loam, 0 to 2 percent slopes	5	4.0	1.2%
Ln	Lorain silty clay loam	100	2.9	0.8%
MgB	Mahoning silt loam, 2 to 6 percent slopes	5	0.0	0.0%
Od	Olmsted loam	100	12.0	3.5%
Or	Orrville silt loam	5	13.1	3.8%
OtF	Oshtemo-Glenford complex, 25 to 75 percent slopes	0	0.1	0.0%
Tr	Trumbull silt loam, 0 to 2 percent slopes	95	1.9	0.5%
Ua	Udorthents	0	0.1	0.0%
Subtotals for Soil Survey Area			**344.1**	**99.9%**
Totals for Area of Interest			**344.4**	**100.0%**

Soil Map—Cuyahoga County, Ohio, and Summit County, Ohio
(Areas A and B Soil Map)



Map Scale: 1:16,300 if printed on A portrait (8.5" x 11") sheet.

N

Meters
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Feet
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Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

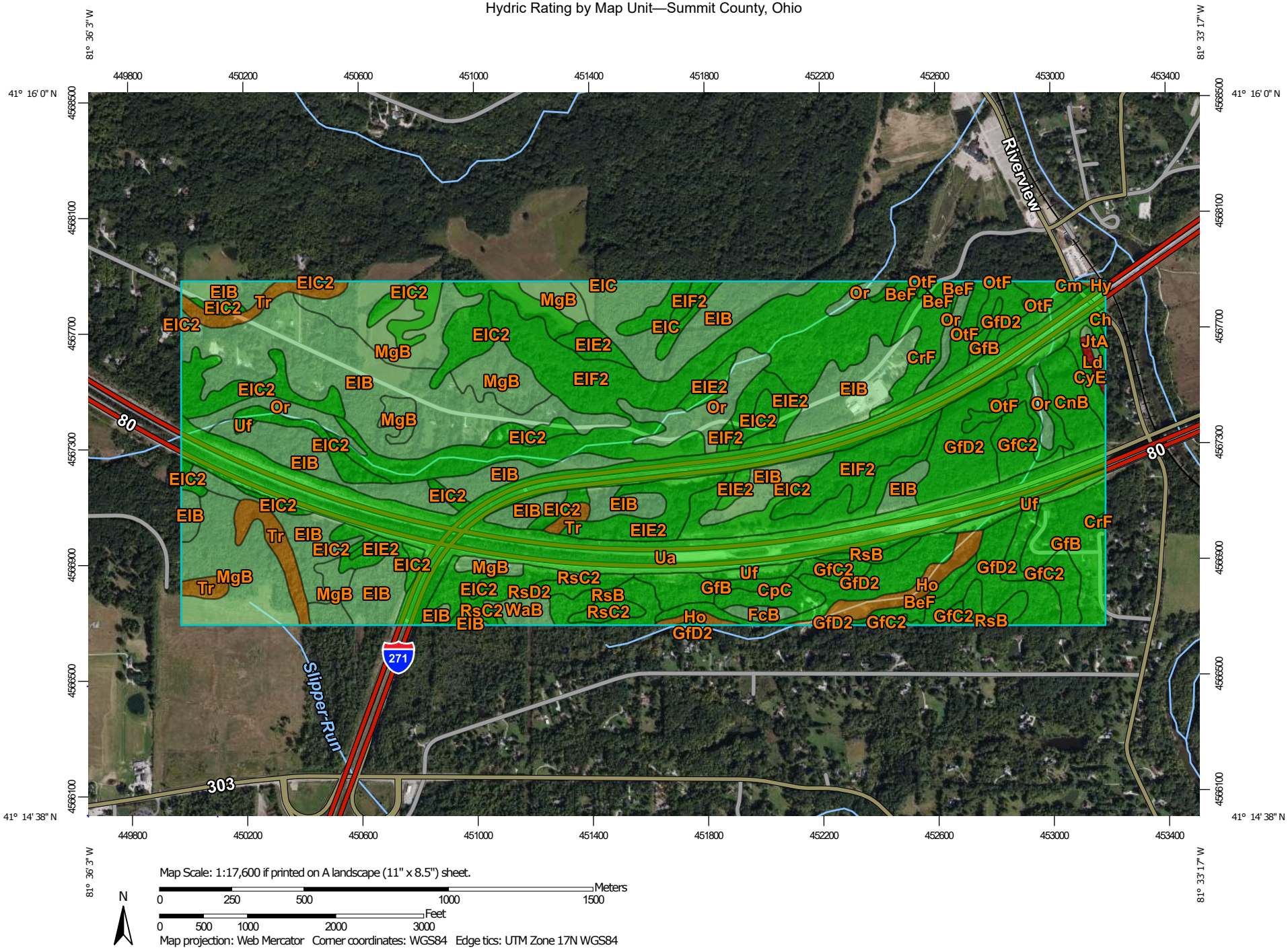
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CnA	Chili loam, 0 to 2 percent slopes	0.0	0.0%
Mo	Mermill loam	0.1	0.0%
Or	Orrville silt loam, frequently flooded	0.1	0.0%
Subtotals for Soil Survey Area		**0.3**	**0.1%**
Totals for Area of Interest		**344.4**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BgA	Bogart loam, 0 to 2 percent slopes	4.3	1.2%
BgB	Bogart loam, 2 to 6 percent slopes	1.9	0.6%
BrF	Brecksville silt loam, 25 to 80 percent slopes, very rocky	24.5	7.1%
CcB	Caneadea silt loam, 2 to 6 percent slopes	4.2	1.2%
Ch	Chagrin silt loam	18.9	5.5%
Ck	Chagrin silt loam, alkaline	0.3	0.1%
CnA	Chili loam, 0 to 2 percent slopes	1.2	0.4%
CrF	Cardinal-Mentor silt loams, 25 to 75 percent slopes	85.0	24.7%
ElB	Ellsworth silt loam, 2 to 6 percent slopes	29.0	8.4%
ElC	Ellsworth silt loam, 6 to 12 percent slopes	22.5	6.5%
ElC2	Ellsworth silt loam, 6 to 12 percent slopes, eroded	21.3	6.2%
ElE2	Ellsworth silt loam, 12 to 25 percent slopes, eroded	13.9	4.0%
ElF2	Ellsworth silt loam, 25 to 50 percent slopes, eroded	44.4	12.9%
FcB	Fitchville silt loam, 2 to 6 percent slopes	8.4	2.5%
GbB	Geeburg silt loam, 2 to 6 percent slopes	8.6	2.5%
GbC2	Geeburg silt loam, 6 to 12 percent slopes, moderately eroded	0.5	0.1%
GbD2	Geeburg silt loam, 12 to 18 percent slopes, moderately eroded	2.1	0.6%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GfB	Glenford silt loam, 2 to 6 percent slopes	15.0	4.4%
GfC2	Glenford silt loam, 6 to 12 percent slopes, eroded	3.2	0.9%
GfD2	Glenford silt loam, 12 to 18 percent slopes, eroded	0.8	0.2%
JtA	Jimtown loam, 0 to 2 percent slopes	4.0	1.2%
Ln	Lorain silty clay loam	2.9	0.8%
MgB	Mahoning silt loam, 2 to 6 percent slopes	0.0	0.0%
Od	Olmsted loam	12.0	3.5%
Or	Orrville silt loam	13.1	3.8%
OtF	Oshtemo-Glenford complex, 25 to 75 percent slopes	0.1	0.0%
Tr	Trumbull silt loam, 0 to 2 percent slopes	1.9	0.5%
Ua	Udorthents	0.1	0.0%
Subtotals for Soil Survey Area		**344.1**	**99.9%**
Totals for Area of Interest		**344.4**	**100.0%**

Hydric Rating by Map Unit—Summit County, Ohio



Map Scale: 1:17,600 if printed on A landscape (11" x 8.5") sheet.

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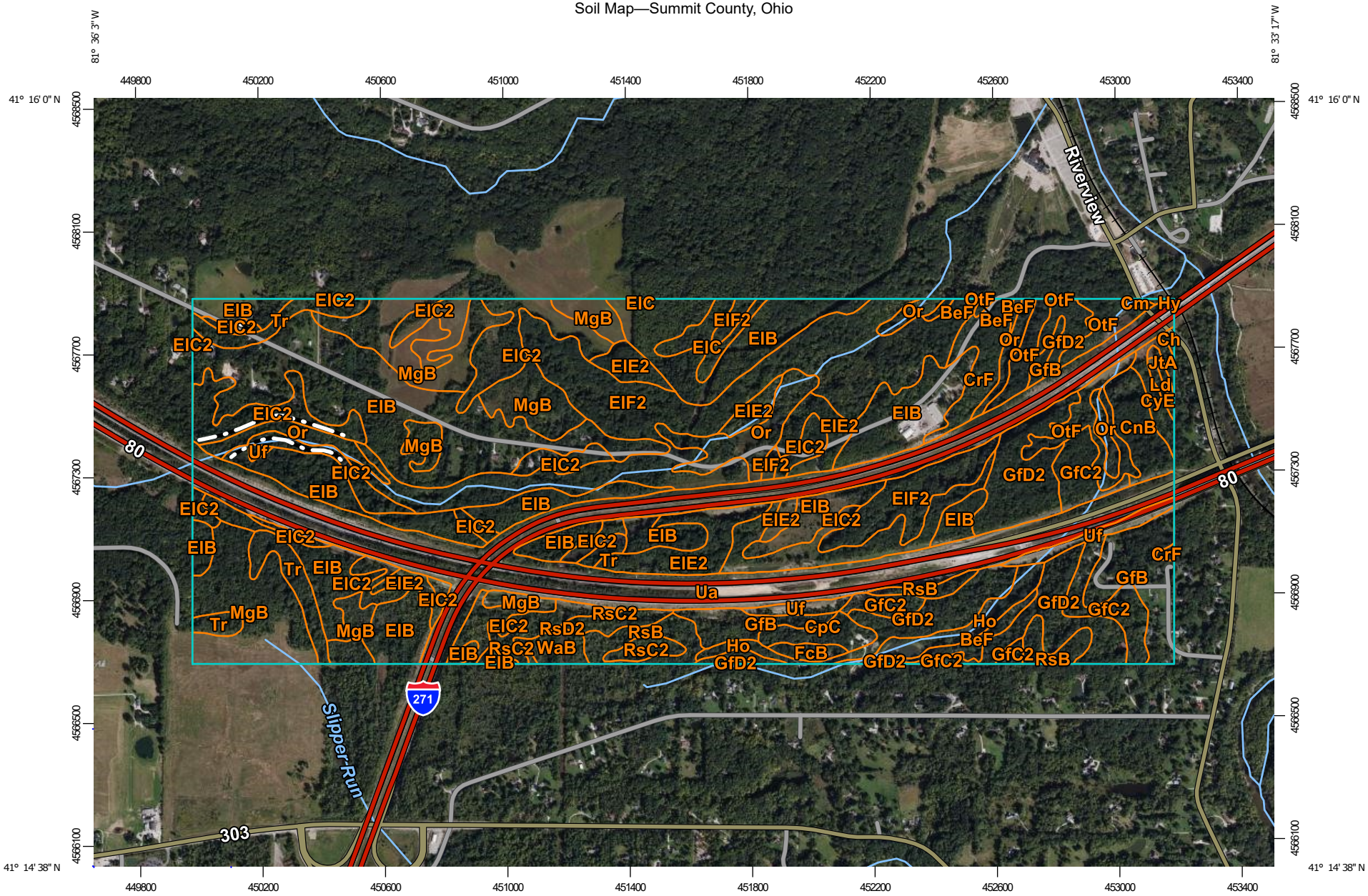
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Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BeF	Berks channery silt loam, 25 to 70 percent slopes	0	5.9	0.6%
Ch	Chagrin silt loam	0	0.6	0.1%
Cm	Chagrin-Urban land complex	0	0.4	0.0%
CnB	Chili loam, 2 to 6 percent slopes	0	11.0	1.2%
CpC	Chili silt loam, 6 to 12 percent slopes	0	6.4	0.7%
CrF	Cardinal-Mentor silt loams, 25 to 75 percent slopes	0	12.4	1.3%
CyE	Conotton-Oshtemo complex, 18 to 25 percent slopes	0	5.1	0.5%
ElB	Ellsworth silt loam, 2 to 6 percent slopes	5	200.4	21.2%
ElC	Ellsworth silt loam, 6 to 12 percent slopes	0	7.3	0.8%
ElC2	Ellsworth silt loam, 6 to 12 percent slopes, eroded	0	86.1	9.1%
ElE2	Ellsworth silt loam, 12 to 25 percent slopes, eroded	0	34.2	3.6%
ElF2	Ellsworth silt loam, 25 to 50 percent slopes, eroded	0	110.9	11.7%
FcB	Fitchville silt loam, 2 to 6 percent slopes	10	2.7	0.3%
GfB	Glenford silt loam, 2 to 6 percent slopes	0	29.4	3.1%
GfC2	Glenford silt loam, 6 to 12 percent slopes, eroded	0	23.9	2.5%
GfD2	Glenford silt loam, 12 to 18 percent slopes, eroded	0	58.3	6.2%
Ho	Holly silt loam	96	11.0	1.2%
Hy	Holly silt loam, alkaline	95	0.2	0.0%
JtA	Jimtown loam, 0 to 2 percent slopes	5	1.2	0.1%
Ld	Linwood muck	100	1.2	0.1%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
MgB	Mahoning silt loam, 2 to 6 percent slopes	5	78.4	8.3%
Or	Orrville silt loam	5	28.5	3.0%
OtF	Oshtemo-Glenford complex, 25 to 75 percent slopes	0	21.4	2.3%
RsB	Rittman silt loam, 2 to 6 percent slopes	0	15.6	1.6%
RsC2	Rittman silt loam, 6 to 12 percent slopes, eroded	0	8.5	0.9%
RsD2	Rittman silt loam, 12 to 18 percent slopes, eroded	0	7.2	0.8%
Tr	Trumbull silt loam, 0 to 2 percent slopes	95	19.2	2.0%
Ua	Udorthents	0	145.6	15.4%
Uf	Udorthents, sanitary landfill	0	8.6	0.9%
WaB	Wadsworth silt loam, 2 to 6 percent slopes	8	4.8	0.5%
Totals for Area of Interest			**946.5**	**100.0%**



Map Scale: 1:17,600 if printed on A landscape (11" x 8.5") sheet.

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Meters: 0 250 500 1000 1500

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BeF	Berks channery silt loam, 25 to 70 percent slopes	5.9	0.6%
Ch	Chagrin silt loam	0.6	0.1%
Cm	Chagrin-Urban land complex	0.4	0.0%
CnB	Chili loam, 2 to 6 percent slopes	11.0	1.2%
CpC	Chili silt loam, 6 to 12 percent slopes	6.4	0.7%
CrF	Cardinal-Mentor silt loams, 25 to 75 percent slopes	12.4	1.3%
CyE	Conotton-Oshtemo complex, 18 to 25 percent slopes	5.1	0.5%
ElB	Ellsworth silt loam, 2 to 6 percent slopes	200.4	21.2%
ElC	Ellsworth silt loam, 6 to 12 percent slopes	7.3	0.8%
ElC2	Ellsworth silt loam, 6 to 12 percent slopes, eroded	86.1	9.1%
ElE2	Ellsworth silt loam, 12 to 25 percent slopes, eroded	34.2	3.6%
ElF2	Ellsworth silt loam, 25 to 50 percent slopes, eroded	110.9	11.7%
FcB	Fitchville silt loam, 2 to 6 percent slopes	2.7	0.3%
GfB	Glenford silt loam, 2 to 6 percent slopes	29.4	3.1%
GfC2	Glenford silt loam, 6 to 12 percent slopes, eroded	23.9	2.5%
GfD2	Glenford silt loam, 12 to 18 percent slopes, eroded	58.3	6.2%
Ho	Holly silt loam	11.0	1.2%
Hy	Holly silt loam, alkaline	0.2	0.0%
JtA	Jimtown loam, 0 to 2 percent slopes	1.2	0.1%
Ld	Linwood muck	1.2	0.1%
MgB	Mahoning silt loam, 2 to 6 percent slopes	78.4	8.3%
Or	Orrville silt loam	28.5	3.0%
OtF	Oshtemo-Glenford complex, 25 to 75 percent slopes	21.4	2.3%
RsB	Rittman silt loam, 2 to 6 percent slopes	15.6	1.6%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
RsC2	Rittman silt loam, 6 to 12 percent slopes, eroded	8.5	0.9%
RsD2	Rittman silt loam, 12 to 18 percent slopes, eroded	7.2	0.8%
Tr	Trumbull silt loam, 0 to 2 percent slopes	19.2	2.0%
Ua	Udorthents	145.6	15.4%
Uf	Udorthents, sanitary landfill	8.6	0.9%
WaB	Wadsworth silt loam, 2 to 6 percent slopes	4.8	0.5%
Totals for Area of Interest		**946.5**	**100.0%**